

# MARIN

ENVIRONMENTAL

98-2429

5 November 1999

Mr. Chuck Schwer  
Department of Environmental Conservation  
Waste Management Division  
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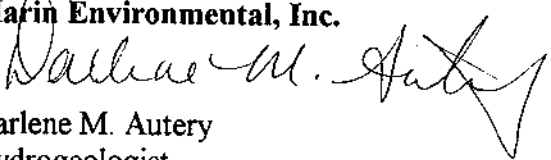
RE: *Phase I/ Phase II Environmental Site Investigation, Bixby's, Poultney, Vermont.*

Dear Chuck:

Enclosed for your review is a copy of the Phase I/Phase II Environmental Site Investigation report for Bixby's located on Bentley Avenue in Poultney, Vermont.

Please contact me or Mr. Ron Miller, Regional Manager, if you have any questions or comments regarding this report.

Sincerely,  
**Marin Environmental, Inc.**

  
Darlene M. Autery  
Hydrogeologist

cc. Paul Denisky, First International Bank, without enclosure  
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## Phase I/Phase II Environmental Site Assessment

**Bixby's**  
34 Bentley Avenue  
Poultney, Vermont  
VT DEC Site #98-2429

26 October 1999

Prepared for:

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MARIN Document 99-0023R01.DOC

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## EXECUTIVE SUMMARY

Marin has conducted a Phase I/Phase II Environmental Site Assessment (ESA) at Bixby's located at 34 Bentley Avenue in Poultney, Vermont. The Phase I portion of the investigation identified several recognized environmental conditions pertaining to the property including: a floor drain in the maintenance garage which previously discharged to the ground surface; soil contamination encountered during the previous removal of a 1,000 gallon kerosene underground storage tank (UST); petroleum-like sheens and odors, and elevated photoionization detector (PID) readings on soils collected beneath a curtain drain discharge pipe adjacent to an intermittent stream on the property; soil staining in the former above ground storage tank (AST) bulk tank area; and, a tree stump and demolition debris disposal area near the southern end of the property. Follow-up investigation indicated that subsurface soils and ground water beneath the site has been impacted with petroleum contamination. Free-phase petroleum was encountered on the water table in the former AST area.

Based on the results of the site investigation described above, Marin concludes the following:

- Petroleum has been released to the subsurface at the site. Free product was observed on soils and groundwater in the vicinity of the former bulk AST area and petroleum compounds above VGES were detected in ground-water samples collected at the site.
- At least two apparent contaminant source areas have been identified: the former bulk AST area and the fuel-dispensing island and/or associated piping. Additionally, contamination has been detected on the sediments adjacent to, and below the curtain drain discharge pipe, at the intermittent stream.
- Free product was encountered in monitoring wells installed in the former bulk AST storage area ranging in thickness from 0.02 to 2.73 feet.
- While excavating a test pit adjacent to the former delivery truck loading area, a vertical section of pipe was encountered. Some free product was observed in the piping, suggesting that the piping had not been purged. Based on the orientation of the pipe, the pipe appears to lead to the 20,000-gallon diesel AST.
- The extent of free-product appears to have been delineated to the north, east, and south. The western free product boundary has not been determined. Free product thickness in the downgradient monitoring wells within the plume, GP-9 (located within the intermittent stream) and GP-18, decreases to 0.02 to 0.18, respectively. No free product or dissolved phase petroleum hydrocarbons have been detected in monitoring wells GP-10 and GP-11 located about 75 feet down gradient of the free-product plume. The extent of free product, at a minimum appears to cover a 3,500 square foot area.
- The free-product plume appears to extend beneath the intermittent stream. Free product was measured on the water table at GP-9; however, the water table was

measured at approximately 6.19 feet below the stream-bed surface. Based on the PID screening results it appears that the intermittent stream functions as a losing stream, suggesting that the stream recharges the underlying ground-water aquifer. Higher contaminant concentrations would be expected in the 0-4' soil sample if contaminated groundwater were being discharged to the stream. The vertical gradient, based on surface water and ground-water measurements, as well as the vertical fluctuations in seasonal ground-water levels, has not been determined.

- Limited groundwater is present in the northern portion of the site due to the shallow depth to bedrock. GP-19 was installed at the bottom of the slope separating the potential source areas on the northern portion of the site (pump-island and current/former USTs) and those source areas on the southern part of the site. The gasoline additive MTBE was detected in the groundwater samples collected from GP-19. GP-19 was installed approximately 100 feet downgradient of the fuel-dispensing island and adjacent to piping leading from the new AST containment area to the pump-island. MTBE suggests that the petroleum source is gasoline. The downgradient extent of this contaminant plume appears to have been defined; however, the source of this concern has not been determined. A PID reading of 400 ppm was recorded on the 0-4' soil sample collected from the GP-12 boring advanced adjacent to the pump-island suggesting a possible release at the pump-island. The boring was terminated at four feet bgs due to refusal.
- Stream sediments of the intermittent stream beneath the new AST-area curtain drain discharge pipe have been impacted by petroleum contamination. The nature and source of contamination has not been determined. Possible options could be a leak from the AST area or associated piping or runoff from the site. Up-stream and off-site contributions are possible. The discharge from the curtain-drain pipe would need to be sampled to determine contaminant concentrations being discharged to the intermittent stream during periods of flow.
- The site is listed as an active petroleum release site due to contamination found during the removal of a 1,000-gallon kerosene UST from the upper portion of the site in 1998. Two existing monitoring wells are located adjacent to the UST area. A ground-water sample was collected by Malter Consulting, Inc., in November, 1998 following the tank removal, at the request of the VT DEC. No petroleum hydrocarbons were present in this sample. The sample may not have been representative of the shallow ground-water aquifer however, as the well was not purged prior to sampling due to limited ground water present. At the time of Marin's site visit investigation, there was insufficient ground water in the existing ground-water monitoring wells to collect samples.
- There was no evidence in the demolition debris area, at the southern portion of the site, suggesting that the disposal of hazardous materials or petroleum products has occurred in this area.

- The soil samples collected from the soil boring (GP-13) advanced at the reported former floor-drain-discharge location did not indicate significant levels of contamination. All PID readings were less than 4 ppm.
- No significant off-site sources of contamination were identified.

On the basis of results of this investigation and the conclusions stated above, Marin makes the following recommendations.

- 1 Permanent two-inch groundwater monitoring wells should be installed to fill data gaps, confirm the extent of contamination, determine the source of gasoline contamination and provide a viable means for manual recovery of free product. Recommended soil boring/monitoring well locations are shown on Figure 8.
- 2 Based on the presence of free product at the site, the permeability of the soils, the thickness of free product in the wells and the proximity of the free product plume to the intermittent stream, a free product recovery plan should be implemented. Weekly depth to water and depth to product measurements should be obtained using the existing one inch monitoring wells and newly installed two-inch monitoring wells starting as soon as possible. If present in recoverable quantities, free product recovery should also be implemented as soon as possible by hand bailing using dedicated bailers. Recoverable quantities of free product should be removed and placed in an appropriately labeled drum for future off-site removal as hazardous waste.
- 3 A free-product sample should be collected for petroleum identification and age dating to confirm the nature of the release resulting in free product on the water table in the AST source area.
- 4 A remedial action plan should be developed to address the free product on the water table and petroleum contaminated soils in the AST source area. Potential remediation technologies include:
  - manual recovery;
  - soil excavation;
  - short-term vacuum enhanced recovery; and,
  - Air-sparging with soil-vapor extraction.

At this time, based on the apparent limited nature of the free product and dissolved phase plume associated with the release, direct removal of soils from the source area should be considered as the most reasonable option. Stockpiling and/or land farming options should be explored.

If Vermont Groundwater Enforcement Standards are to be attained at the site then a Corrective Action Feasibility Investigation should be performed at the site to evaluate potential remedial alternatives. Current information suggests that soil-

vapor extraction and air-sparging represent the remedial techniques most likely to prove effective at this site.

- 5 The 20,000-gallon diesel AST and associated piping should be purged of residual product and be removed from the source area to eliminate a potential ongoing source of free product. The product should be disposed in accordance with appropriate waste handling procedures.
- 6 The curtain drain system should be evaluated to ensure that current operations are being conducted using best management practices.



## 1.0 INTRODUCTION

This report details the results of a Phase I/Phase II Environmental Site Assessment (ESA) conducted at Bixby's located at 34 Bentley Avenue in Poultney, Vermont (Figure 1 and Figure 2). This report has been prepared by Marin Environmental, Inc. (Marin) for First International Bank. The Phase I and Phase II ESA's were performed in accordance with ASTM Standards E1527-97 and E1903-97, respectively.

The objectives of this Phase I/II ESA were to:

- Evaluate the environmental conditions at the site related to past and present on-site activities; and,
- Evaluate the environmental conditions at the site related to adjacent land use and the potential for contaminant migration from adjacent properties.

To accomplish these objectives, Marin has:

- Reviewed previous ESA's conducted for the site;
- Reviewed existing historical data for the site and adjacent properties;
- Reviewed Vermont Department of Environmental Conservation (VT DEC) files for the site and adjacent properties;
- Performed a site walkover of the subject property and curb-side survey of the adjacent properties;
- Performed a test-pit investigation of the demolition debris area at the southern site boundary;
- Performed a geoprobe test-boring investigation with monitoring well installations at potential source areas identified during the Phase I portion of the ESA;
- Screened soil samples for the presence of volatile organic compounds (VOCs) using a photoionization detector (PID);
- Obtained depth to ground-water and free-product measurements in fourteen ground-water monitoring wells;

- Collected ground-water samples from seven monitoring wells for laboratory analysis of petroleum hydrocarbons by EPA Method 8021B and total petroleum hydrocarbons (TPH) Diesel Range Organics (DRO) by EPA Method 8015B;
- Collected sediment samples from the intermittent stream for laboratory analysis of petroleum hydrocarbons by EPA Method 8021B and total petroleum hydrocarbons (TPH) Diesel Range Organics (DRO) by EPA Method 8015B; and,
- Prepared this summary report, which details the work performed, qualitatively assesses the risks, provides conclusions and offers recommendations for further action.

### **1.1 Site Description and Physical Setting**

The Bixby's property consists of 16.3 acres. The on-site structures currently include a garage/office building, and two barns used for miscellaneous parts and equipment storage. The site elevation averages approximately 427 feet above mean sea level (as determined by a nearby U.S.G.S. benchmark) in the northern portion of the site. The land slopes down approximately eight feet behind the office and storage buildings to the new covered and diked bulk petroleum storage area and delivery-truck loading rack. The new petroleum storage and distribution facility was completed for the site in 1996. The remainder of the land is mostly open field. An intermittent stream flows from the northeast portion of the property toward the south where it empties into the Poultney River approximately 1,100 feet south of Bentley Avenue. The presumed direction of ground-water flow in the area is to the south toward the Poultney River. A concrete pad on the south side of the intermittent stream marks the former location of a storage barn. A gravel road leads from the northern portion of the site, across the intermittent stream and continues to the south. Four explosives magazines are located in the southern portion of the property along the gravel road.

The bulk petroleum storage area currently consists of six aboveground bulk storage tanks with a combined storage capacity of 100,000 gallons of petroleum products including #2 fuel oil, kerosene, gasoline, and diesel fuel. Within the diked area is also a shed that houses two 275-gallon above ground storage tanks (ASTs) that are used to store fuel additives. To the south of the tanks is the delivery truck loading rack. The transport unloading

station is located immediately west of the tanks. Access to the fenced storage area is controlled by the use of a key card system. Fuel and gasoline are transported underground to serve a pump-island located immediately south of Bentley Avenue.

An abandoned 20,000-gallon, free-standing AST marks the location of the former petroleum storage area, south of the new storage area. An earthen berm paralleling the intermittent stream served as the former spill control and containment feature. A railroad spur, from which fuel oil may have historically been transported to the site, extends onto the property.

Native surficial materials in the vicinity of the subject parcel are mapped as fluvial sand and gravel in the northern portion of the site and bedded gravel in the southern portion of the site (Stewart and MacClintock, 1970). Bedrock in the area is mapped as slate of the Mount Hamilton Formation (Doll, 1961). Shallow bedrock has been encountered in the northern portion of the site, adjacent to Bentley Avenue, within five feet of ground surface.

## **1.2 Site Utilities**

Drinking-water and waste-water disposal for the subject property are provided by the Poultney municipal systems. With the exception of catch-basins in the new AST bulk storage containment area, no catch basins or retention ponds were observed on site. The catch-basin in the containment area is reportedly in place to house a sump in the event of a release. A curtain drain surrounds the AST area and a discharge pipe daylights at the intermittent stream.

## **1.3 Underground Storage Tanks**

One 1,000-gallon heating oil underground storage tank (UST) is currently in use at the site. This UST, which is of single-walled-steel construction reportedly installed in 1984, is located on the west side of the office building, for storage of #2 fuel oil for the office building heating system.

A 1,000-gallon kerosene UST and associated pump-island (Figure 3) were removed from the west side of the office building on 26 May 1998. Refer to Section 3.1 for the findings of the tank removal.

According to Mr. Keyser of Owner Services, Inc, the two USTs which are/were located next to the office building, previously contained gasoline and diesel which served a former pump-island in approximately the same area as the existing pump-island.

Two ground-water monitoring wells were installed in this area in approximately 1984, reportedly for leak detection purposes.

#### **1.4 Above Ground Storage Tanks**

Two generations of above ground storage tanks have been used at the site. The original ASTs consisted of the following:

- a 20,000-gallon #2 fuel oil AST installed in 1960;
- a 10,000-gallon #2 fuel oil AST installed in 1956;
- a 20,000-gallon diesel AST installed in 1960;
- a 10,000-gallon kerosene AST installed in 1974;
- a 10,000-gallon unspecified petroleum product installed in 1974.

With the exception of the 20,000-gallon diesel AST, these ASTs have been removed from the site. The diesel AST remains in-place in the former AST area, south of the new AST area.

The current generation of ASTs are housed in a concrete, roofed and diked containment area and consist of six ASTs with a combined storage capacity of 100,000 gallons. The products stored include gasoline, diesel, #2 fuel oil, and kerosene. The new containment area is directly north of the former AST area.

#### **1.5 Site History**

The Bixby's property has been used for the storage and distribution of petroleum products and black powder, blasting agents, blasting caps, high explosives, and until recently, coal,

since the late 1800s to early 1900s<sup>1</sup>. A powder house and coal shed are depicted on the earliest available Sanborn Historical Atlas Map (Sanborn Map) for the site, dated 1885 (Appendix A). The ASTs in the former bulk petroleum area were initially installed between 1956 and 1984.<sup>2</sup>

A summary of site ownership history for the subject parcel has been included in the Phase I ESA performed by Nobis Engineering, of Concord, New Hampshire (1991) and a Phase I ESA performed by Malter Consulting, Inc. of Waterbury, Vermont (1997)<sup>3</sup>. Marin did not conduct a separate review of deed records as part of this investigation. The site ownership history as described in the Nobis and Malter ESAs is summarized below:

Lot 46 -- 2.4 +/- Acres

<u>Owner of Record</u>	<u>Period of Ownership</u>
Owner Services, Inc.	5/25/82-present
Bixby's, Inc.	2/6/70 - 5/25/82
E.M. Bixby's	9/29/65 - 2/6/70
Leroy Hall and Josephine Bixby Hall	3/12/58 - 9/29/65
Clayton E. Bixby and Florence and Chester Bixby	? - 3/12/58

<sup>1</sup> Sanborn Historical Atlas Maps which included the site where available for the following dates: 1885, 1892, 1897, 1904, 1909, 1922 and 1929. The Sanborn Maps were reviewed at the University of Vermont by Marin to determine site use history.

<sup>2</sup> Nobis Engineering, Environmental Site Assessment - Phase I, Bixby's, Poultney, Vermont, December 1991.

<sup>3</sup> Nobis Engineering, Environmental Site Assessment - Phase I, Bixby's, Poultney, Vermont, December 1991.

Lot 47 - 13.9 +/- Acres

<u>Owner of Record</u>	<u>Period of Ownership</u>
Owner Services, Inc.	5/25/82 - present
Kenneth Zeller	7/21/77 - 5/25/82
William Lenz and Sarah Dix	9/22/64 - 7/21/77
John Bessey	? - 9/22/64
George and Julia Bessey	8/8/1891 - ?

#### **1.6 Previous Site Assessments**

As indicated above, two previous ESA's (Nobis Engineering, 1991 and Malter Consulting, 1997) have been completed for the subject parcel and were reviewed by Marin. The summary and conclusions have been included for each of these ESA's as Appendix B. Each ESA recommended further work to determine if soil and ground-water quality at the site had been impacted.

The Nobis Engineering ESA concluded there was evidence to suggest the possible presence of hazardous waste releases at the site as surficial soil staining was observed in the vicinity of the (former) petroleum bulk storage tanks. Also, an oily sheen was observed on water in a concrete well near the bulk storage area. This well has since been removed. A Phase II investigation, including the installation of ground-water monitoring wells was recommended to determine if the soil and ground-water quality at the site had been impacted by petroleum releases. Recommendations included the proper disposal of suspected waste asbestos containing materials, various used drums, USTs and any contents that may have been present in accordance with applicable local, state and federal regulations were also suggested.

The 1997 ESA prepared by Malter Consulting, Inc. concluded that the assessment "has revealed no evidence of recognized environmental conditions in connection with the property" with the exception that "the floor drain in the garage poses an impact to surface

water. The Malter ESA recommended subsurface soil sampling and analysis be performed to determine the extent of any oil contaminated soil following the removal of "two empty tanks behind the new bulk plant" and, the installation of ground-water monitoring wells and ground-water sampling and analysis in the vicinity of the former bulk storage area. The two empty tanks are presumed to have been in the former AST area.

## **2.0 ADJACENT PROPERTY OWNERSHIP AND LANDUSE**

Residential properties abut the site to the north across Bentley Avenue and to the east along Grove Street. The Poultney River and an abandoned railroad bed border the site to the south and west, respectively. The surrounding area is residential along Bentley Avenue and commercial and retail businesses, including several gas stations are located along Main Street, approximately 500 feet to the north of the site.



### **3.0 HAZARDOUS-WASTE/PETROLEUM-RELEASE SITES**

Marin reviewed available information on file at the Vermont Department of Environmental Conservation (VT DEC) office in Waterbury, Vermont regarding hazardous-waste and petroleum-release sites in Poultney that may impact or threaten to impact the subject parcel.

#### **3.1 Permitted and Non-Permitted USTs**

Marin reviewed the VT DEC Hazardous Materials Division UST Database Listing for the Town of Poultney. A 1,000-gallon kerosene UST is reported to have been pulled on 26 May 1998. The UST was used for the commercial sale of kerosene. The UST closure report, provided in Appendix C. 1, stated that the UST excavation did not exhibit any detectable levels of petroleum contamination. The area around the vent pipe showed some contamination interpreted as being from overfilling. The kerosene pump-island exhibited evidence of contamination and 12 cubic yards of gravel were excavated from the area and polyencapsulated on site. The UST was reported as approximately 13 years old and in good condition. The associated piping was reportedly in fair condition.

The soils in the vicinity of the UST were characterized as coarse gravel fill from 0-5' below ground surface (bgs) and fine sand over till from 7 to 8 feet bgs. The sand was damp at 7 feet; however, the water table was reportedly not intercepted. Bedrock was observed at about 5 feet bgs in the vicinity of the former dispenser island.

No USTs were listed currently for the subject parcel or adjacent properties; however, a 1,000-gallon fuel oil UST, used for heating the office building/maintenance garage, is located on the west side of the building, as shown on Figure 2. A listing of pulled and active USTs in Poultney is included as Appendix C.1.

#### **3.2 VT DEC Sites**

Marin reviewed the VT DEC active and closed sites lists dated 14 April 1999 for hazardous-waste and petroleum release sites located in Poultney, Vermont. The site is listed as an active site (VT DEC Site# 98-2429) due to contamination found during the removal of the UST as described above. The UST report had indicated that the limits of

contamination had been determined; however, no laboratory analysis of soil samples was performed. As such, the state required that the limits of contamination be defined to ensure that groundwater has not been impacted. To satisfy these requirements Owner Services retained Malter Consulting, Inc. to sample an existing ground-water monitoring well positioned downgradient of the former UST excavation, and also to screen the on-site soil stockpile. A sample was collected from this monitoring well on 12 November 1998; however, a limited amount of water was present in the well. No detectable levels of petroleum hydrocarbons were detected by EPA Methods 8021B and Total Petroleum Hydrocarbons by EPA Method 8100. The site was recommended for Site Management Activities Completed (SMAC) status once PID screening levels of the soil stockpile reduce to background.

Several other active sites were listed within one half mile of the site. These facilities include:

- Staco Industries, located on Beaman Street, approximately 1/2 mile north and potentially hydrologically upgradient of the site;
- Williams Machine Company, 18 Beaman Street, approximately 1/4 mile northeast and hydrologically cross gradient from the site;
- Main Street Stewarts Shop, at Main Street and Maple Street, approximately 1/8 mile northwest and cross gradient of the site;
- Poultney Mobil, 1 East Main Street, 1/4 mile east and cross gradient of the site;
- Poultney BP/Exxon, 12-14 Main Street, 1/4 mile northeast and cross gradient of the site; and,
- Heald's Garage, 2 Beaman Street, 1/8 mile northeast and potentially upgradient of the site on the intermittent stream.

Based on the distance and direction of these sites from the subject parcel it does not appear likely that contamination migration from these sites would impact the subject site. A complete listing of closed and active sites in Poultney, Vermont is included as Appendix C.2.

### **3.3 Spill Data Base**

Marin reviewed the VT DEC Hazardous Materials Division Spills Data Base Listing dated 25 May 1999, for the Town of Poultney. The database includes reported spills that occurred in the town of Poultney between April 1975 and 29 May 1998. No spills were reported to have occurred on the subject property. A listing of spills in Poultney is included in Appendix C.3.

### **3.4 RCRA/CERCLA Sites**

Marin reviewed available information regarding U.S. Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) facilities, National Priority List (NPL) facilities (better known as Superfund sites) and Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) sites within one mile of the site. The site was not listed in any of these documents. No NPL sites, CERCLIS sites, or RCRA-permitted treatment, storage, and disposal (TSD) facilities are located in Poultney. Several RCRA Generators were listed within 1/2 mile of the subject parcel. A listing of RCRA Generators in Poultney is included in Appendix C.4.

## 4.0 INVESTIGATIVE PROCEDURES AND RESULTS

### 4.1 Site Walk-Over and Curb-Side Survey

On 28 May 1999, Marin conducted a site walkover and curb-side survey of adjacent properties. Photodocumentation is provided as Appendix D.

During the site walkover, Marin made the following observations:

- Petroleum-like sheens and odors were observed adjacent to the intermittent stream on soils below a four-inch diameter discharge pipe. The intermittent stream flows directly to the Poultney River. Soils within and adjacent to the pipe were collected in plastic baggies for headspace screening for the presence of volatile organic compounds (VOC) using a PID. Soil samples within the pipe exhibited readings of one to two ppm. A soil sample collected from immediately below the pipe exhibited a PID reading of 15 ppm. The comparatively low PID readings on the soils from within the pipe may suggest that sporadic releases of petroleum may be entering the pipe followed by periods of flushing. Soil samples collected from along the embankment adjacent to the intermittent stream and beneath the pipe exhibited PID readings of four to five ppm, which suggests that the fill around the pipe may be acting as a preferential contaminant migration pathway. The pipe is reportedly associated with a perforated perimeter curtain drain for the bulk petroleum storage area.
- Some soil staining was observed in the former AST storage area, no significant sheening was observed.
- With the exception of some petroleum staining observed on the concrete pad underlying the current delivery truck loading rack and transport unloading area, only limited petroleum staining was observed within the current bulk petroleum storage area.
- Waste debris including wood, tree stumps and brush, and metal piping was observed over a bank to the east of the main office building/garage and concrete, wood and tree stumps were observed in a debris pile along the south edge of the property. Observations of debris along the south edge of the property, described in the 1991

ESA report prepared by Nobis Engineering, included empty metal drums. This area is also considered to have been a potential disposal area for the explosives operation.

- A floor drain was observed in the maintenance garage that ran the length of the floor from west to east. The garage is used to house and maintain the petroleum delivery trucks. The discharge location of the floor drain was not determined. According to the 1997 ESA prepared by Malter Consulting, Inc., the floor drain daylighted to the east of the garage on the bank which rises approximately 12 feet in elevation above the intermittent stream. According to current Bixby's staff, the floor drain no longer discharges outside. The former discharge location was observed by Marin. No visual or olfactory evidence of contamination was present. A slight depression in the ground surface was observed however.

#### **4.2 Test-Pit Investigation**

On 25 August 1999, Marin personnel returned to the site to evaluate the demolition debris area at the southern site boundary for visual characterization to determine if petroleum or hazardous materials had been disposed of in this area, as outlined in a work plan dated 11 June 1999.

Three test-pits were excavated, inspected for the presence of debris, and screened for VOCs using a PID. The following is a brief characterization of the contents in each test pit.

Test Pit #1 (TP-1) was excavated at the west end of the demolition debris area. The test pit was extended approximately eight feet long by six feet wide and eight feet deep. No demolition debris was encountered in this test pit and no PID readings above back ground were noted on soil samples collected approximately every two feet. Apparently native sand and gravel was encountered starting at approximately four feet bgs.

Test Pit #2 (TP-2) was excavated to the east of TP-1. Boulder-size slabs of concrete, slate and boards mixed with dark-brown, fine to medium sand and cobbles were encountered from 0-8 feet bgs. Sand and gravel was encountered below the concrete starting at approximately 8 feet bgs. Test pit #2 extended approximately twenty five feet

in length and width and eight feet deep. No PID readings above back ground were detected on soil samples collected during the excavation.

Test Pit #3 (TP-3) was excavated to the east of TP-1 and TP-2 and delineated the eastern extent of the demolition debris area. Concrete, slate, boards, brick, stumps, and a discrete layer of coal was encountered from 0-6' bgs and was underlain by sand and gravel. No elevated PID readings on soil samples or coal samples were observed.

At the completion of the investigation of the demolition debris disposal area, one test-pit (TP-4), was excavated at the former delivery truck loading area adjacent to the former AST area. The test pit served to remove the concrete pad covering the area in anticipation of the soil boring investigation and to assess the presence of petroleum contamination. Strong petroleum odors and black stained soils were encountered beneath the concrete pad and staining appeared to extend to groundwater. The test pit was excavated to approximately six feet bgs and groundwater appeared to be seeping into the excavation at approximately four feet bgs. A vertical pipe containing some petroleum product was encountered at the southwest corner of the test pit. The pipe orientation was assessed and at approximately two feet bgs elbowed and ran horizontal toward the 20,000-gallon diesel AST which remains in the former AST area.

The test-pit excavations were conducted by R.H. Hall and Sons of Castleton, Vermont, using a backhoe. Test-pit locations are presented on Figure 2.

#### **4.3 Geoprobe Investigation**

On 27 August 1999, a geoprobe investigation was conducted to assess soil and groundwater conditions in areas of concern that were identified during the VT DEC file review and the site walkover. Nineteen geoprobe soil borings (GP-1 through GP-19) were advanced at the site. Temporary groundwater monitoring wells were installed at locations where contamination was encountered or to delineate limits of contamination. The areas of concern that were identified during the Phase I portion of the investigation that were the focus of the geoprobe investigation include:

- the maintenance garage floor-drain discharge location to the east of the maintenance garage;

- soil contamination encountered during the removal of the 1,000 gallon kerosene underground storage tank (UST);
- the curtain drain discharge pipe area adjacent to the intermittent stream;
- soil staining in the former above ground storage tank (AST) bulk tank area; and,
- the current and former bulk transport unloading and delivery truck loading areas.

Fourteen temporary one-inch monitoring wells were installed. Free product was encountered in six wells located within the former AST area (GP-6, GP-7, GP-8, GP-16, GP-17, and GP-18). Free product was also detected in the monitoring well installed in the intermittent stream. Soil-boring and monitoring-well locations are shown on Figure 3. Soil boring logs are included as Appendix E. A geologic cross section of the former AST area is included as Appendix F.

The following is a summary of the location rationale for soil boring/monitoring wells at the site:

- GP-1 was advanced to assess the new AST area and delivery truck loading area;
- GP-2 and GP-3 were advanced to assess the former delivery truck loading area;
- GP-4 and GP-5 were advanced in the vicinity of the curtain drain pipe;
- GP-6, GP-7, GP-8, GP-9, GP-16, GP-17, and GP-18 were advanced to assess the former AST area, and upon encountering free product delineating the extent of free product.
- GP-9 and GP-11 were advanced to assess the impacts to the intermittent stream and the down gradient extent of contamination from the former AST source area;
- GP-10 was advanced to assess the downgradient extent of contamination in the former AST source area;
- GP-12 was advanced adjacent to the current fuel dispensing island in the upper northern portion of the site;
- GP-13 was advanced to assess the floor drain discharge on the eastern side of the office building;
- GP-14 was advanced to assess the new transport unloading station;
- GP-15 was advanced to assess the former transport unloading station; and,

- GP-19 was advanced at the slope separating the upper and lower portions of the site to assess contaminant (if present) migration from the former UST and fuel dispensing island source areas. Shallow refusal at GP-12 and the apparent lack of ground water above bedrock necessitated the downgradient position of the well.

The soils encountered in borings in the lower portions of the site in the former AST area were predominantly sand and gravel overlying fine sand. Depth to fine sand ranged from four to nine feet bgs, averaging approximately 8 feet bgs. Clay lenses were encountered in borings GP-5, GP-11 and GP-17 in the 8-12' sampling interval.

Shallow refusal was encountered when advancing the 0-4' sample at GP-12, located adjacent to the pump-island.

Sand and gravel fill was encountered while advancing GP-13 at the floor drain discharge location. Reportedly this area has been filled with miscellaneous demolition debris.

GP-14 and GP-15 were advanced in the current and former transport unloading areas, respectively. Refusal was encountered 10 feet bgs at GP-14. Sand and gravel fill with coal extended down to approximately 14 feet bgs at GP-15. GP-15 is adjacent to the former coal shed location.

With the exception of borings conducted in the upper portions of the site, groundwater was encountered in each of the borings at approximately six feet bgs. One inch poly-vinyl chloride (PVC) monitoring wells with approximately 10 feet of .010-inch factory slotted well screen were installed within each boring with the exception of GP-12, GP-13, GP-14 and GP-15, where no wells were installed. Sections of riser were added to bring the tops of PVC to approximately three feet above ground surface. No filter pack or bentonite seal was added as these wells were constructed as temporary monitoring points to delineate extent of contamination.

Environmental Drilling, Inc, of Glens Falls, New York installed the soil boring/monitoring wells at the site using geoprobe drilling techniques. Soil samples were collected continuously at four-foot intervals. Sample recovery was fair, averaging 36 inches.



All samples collected were screened for the possible presence of VOCs with a PID and logged for lithology by a Marin hydrogeologist. All down hole drilling and sampling equipment was decontaminated during use as appropriate.

#### **4.3.1 PID Soil Screening Results**

PID field screening results of soil samples collected from the soil borings indicate that significant residual contamination exists down into the water table in the vicinity of the former AST area. Elevated PID readings were also detected on a soil sample collected adjacent to the pump-island.

PID readings on soils from borings advanced in the former AST area generally reached approximately 100-150 parts per million (ppm). Each of the soil borings in this area were terminated at approximately 12 feet below ground surface and PID readings decreased in general to less than 10 ppm in the fine sand at the base of each boring.

A PID reading of 400 ppm was encountered on a soil sample collected from GP12 advanced adjacent to the current pump-island suggesting a possible source of gasoline contamination.

PID readings on the soils collected from GP-4 and GP-5, advanced on either side of the curtain drain pipe, ranged from 0.0 to 0.4 ppm. This data suggests that contamination is not migrating along the outside of the pipe in these areas.

PID readings on soil samples collected from GP-9, located in the intermittent stream, were 2.5 ppm, 95 ppm and 2.6 ppm, for the 0-4', 4-8' and 8-12' samples, respectively. These PID readings suggest that the contamination is focused at the water table and suggests that ground water is not being discharged to the intermittent stream. If groundwater was being discharged then the PID readings on soils collected from 0-4' bgs would expect to be elevated.

PID readings on soil samples collected from GP-10 and GP-11, 75 feet downgradient of the former AST source area were less than 5 ppm.

The Marin hydrogeologist screened soil samples from each soil boring for the possible presence of VOCs using a Photovac 2020 PID. The PID was calibrated in the field with an isobutylene standard gas to a benzene reference. PID soil screening results are included on the boring logs included as Appendix E.

#### **4.4 Determination of Groundwater Flow Directions and Gradient**

Ground-water flow in the unconfined surficial aquifer beneath the site appears to be flowing in a southerly direction toward the intermittent stream and the Poultney River, as originally presumed. The average gradient of the local ground-water table across the former AST source area on 9 September 1999 was 4.8 percent. Average ground-water flow velocities are estimated to be in the range of 1 to 20 feet per day with higher velocities in the sand and gravel layer. Water and product level measurements and elevation calculations for 9 September 1999 are presented on Table 1. The ground-water contour map (Figure 4) was prepared using this data.

Fluid levels were measured in the 14 monitoring wells on 9 September 1999. The depth to water varied from approximately 4.84 (GP-2) feet to 9.97 (GP-8) feet bgs. These depths were determined by measuring the depth to the water table from top of PVC casing and subtracting the height of the stickup above ground surface. Free product was encountered in monitoring wells GP-6, GP-7, GP-8, GP-9, GP-16, GP-17, and GP-18 at thicknesses ranging from 0.02 at GP-9 (in the intermittent stream) to 2.73 at GP-8.

Static water-table elevations were computed for each monitoring well by subtracting the measured depth-to-water or corrected depth-to-water readings from the surveyed top-of-casings, which are relative to an arbitrary site datum of 100.00 feet.

The sand and gravel and fine sand layers comprising the shallow aquifer at the site typically exhibit effective porosities of about 30 percent and hydraulic conductivities of 10 to 1,000 gallons per day per square foot. (Driscoll, 1986). Assuming Darcian flow, this estimate combined with the calculated ground-water gradient of 4.8 percent yields an estimated range of groundwater flow velocities in the surficial aquifer of between one to twenty feet per day. The velocities in the sand and gravel could be greater by an order of magnitude or more.

## 4.5 Sampling and Analysis

### 4.5.1 Groundwater

Free-phase and dissolved-phase petroleum contamination is present in the subsurface at the site. The extent of the free-phase and dissolved-phase plume has not been completely delineated.

The nature and distribution of petroleum contamination suggests that the former AST area is the primary contaminant source area contributing to ground-water contamination. Additionally, the fuel-dispensing island and/or associated piping may be contributing gasoline contamination. The nature of the free product encountered in the subsurface has not been characterized by laboratory analysis; however, visual and olfactory evidence indicates that the product may be diesel fuel.

Free product thickness ranged from 2.73 feet at GP-8, approximately 30 feet south of the diesel AST, to 0.02 feet at GP-9 located in the intermittent stream, 40 feet south of the diesel AST. The free product plume appears to cover a 3,500 square-foot area at least.

The extent of dissolved-phase contamination appears to be nearly defined. No petroleum hydrocarbons were detected in GP-10 and GP-11, located 45 and 75 feet south, and down gradient of, the free product plume, suggesting that the southern extent of dissolved contamination from the AST area is reasonably delineated. Low benzene, toluene, ethylbenzene and xylene (BTEX) concentrations, 2.4 and 2.5 µg/L, were detected in the samples collected from GP-2 and GP-3, respectively, approximately 45 feet upgradient of the out-of-service diesel AST. No petroleum hydrocarbons were detected in GP-1 or GP-4, which are located approximately 75 feet upgradient of the out-of-service diesel AST and downgradient of the new AST area.

Vermont Groundwater Enforcement Standards (VGESs)<sup>4</sup> were exceeded in ground-water samples collected from monitoring wells GP-2, GP-3 and GP-19. GP-2 and GP-3 are located in the former delivery truck loading area and immediately north of the former AST source area, and GP-19 is located approximately 100 feet south and downgradient of the pump island and adjacent to piping of the new AST storage area. 1,2,4- trimethyl benzene was detected in the groundwater samples collected from GP-2 and GP-3 at 4.9 and 10.0 µg/L, respectively, exceeding the VGES of 4 µg/L. Benzene and MTBE were detected at 18.0 and 168 µg/L, respectively, in the groundwater samples collected from GP-19, exceeding the VGES of 5 and 40 µg/L for each of these compounds, respectively.

No methyl tertiary butyl-ether (MTBE) was detected in the ground-water samples collected from within the former AST area. The presence of MTBE at 168 µg/L in the ground-water sample collected from GP-19 suggests that gasoline may also have been released at the site. GP-19 is located approximately 100 feet south and downgradient of the fuel-dispensing island and adjacent to the piping that leads from the AST containment area to the fuel-dispensing island. Total BTEX concentrations in this groundwater sample were detected at 32.8 µg/L.

Total petroleum hydrocarbons (TPH) were detected at 1.16 and 1.45 mg/L at GP-2 and GP-3, respectively. All other ground-water samples were non-detect for TPH.

Ground-water samples were collected on 9 September 1999 from seven of the 14 ground-water-monitoring wells installed at the site. The remaining wells were not sampled due to the presence of free product. All samples were shipped in an ice-filled cooler under chain-of-custody controls to Endyne, Inc. of Williston, Vermont, where they were analyzed for petroleum hydrocarbons by EPA Method 8021B and Total Petroleum Hydrocarbons - Diesel Range Organics by EPA Method 8015B. Duplicate and trip-blank samples were also collected and analyzed for quality assurance and quality control (QA/QC) purposes.

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<sup>4</sup>The Vermont DEC has established Groundwater Enforcement Standards (VGESs) for eight petroleum related VOCs, as follows: benzene - 5 ppb; toluene - 1,000 ppb; ethylbenzene - 700 ppb; and xylenes - 10,000 ppb. MTBE (a gasoline additive) - 40 ppb, naphthalene - 20 ppb, 1,2,4-trimethylbenzene - 5 ppb, 1,3,5-trimethylbenzene - 4 ppb.

Analytical results of the ground-water samples are summarized in Table 2. Contaminant Distribution Maps for total BTEX / MTBE and for TPH are presented as Figures 5 and 6, respectively.

#### **4.5.2 Sediments**

Sediment samples collected immediately below the curtain-drain discharge pipe at the intermittent stream indicate that the intermittent stream is being impacted by petroleum contamination. Total BTEX contamination was detected at 235.6 µg/kg in sample SS1 collected immediately downgradient of the pipe discharge and 144.5 µg/kg at SS2, approximately eight feet downstream of the pipe discharge. Possible contribution from upstream sources has not been evaluated.

Each sediment sample was collected from six inches below the stream bed surface using a stainless steel spoon. Samples were shipped in an ice-filled cooler under chain-of-custody controls to Endyne, Inc. of Williston, Vermont, where they were analyzed for petroleum hydrocarbons by EPA Method 8021B and Total Petroleum Hydrocarbons - Diesel Range Organics by EPA Method 8015B.

## **5.0 SENSITIVE RECEPTOR SURVEY**

### **5.1 Sensitive Receptor Evaluation**

Marin conducted an evaluation of the sensitive receptors in the vicinity of the site that could potentially be impacted by on-site contamination. The following sensitive receptors were identified.

- The intermittent stream, within the free product plume;
- The Poultney River, approximately 1,000-feet south of the former AST source area; and,
- On-site building air quality.

The site and adjacent properties are supplied with municipal drinking water. No private or public water supply wells were observed near the site.

### **5.2 Risk Assessment**

Marin assessed the risks that the subsurface contamination poses to the receptors identified above. In general, human exposure to petroleum related contamination is possible through inhalation, ingestion, or direct contact while impacts to environmental receptors are due either to a direct release or contaminant migration through one receptor to another or along a preferential pathway.

The findings of our risk assessment indicate that the subsurface contamination at the site poses a risk to the intermittent stream and to the Poultney River.

#### *Surface-Water Quality*

The surface water quality of the intermittent stream and the Poultney River may be at risk of petroleum contamination. The intermittent stream appears to intercept the downgradient edge of the free-product plume. Free product was measured in GP-9 at a

thickness of 0.02 feet. The water table however, was measured at approximately 6.19 feet below the stream-bed surface. PID readings of the subsurface soils at GP-9 were 2.5 ppm in the 0-4' sample composite sample, 95 ppm in the 4-8' composite sample and 2.6 in the 8-12' sample. Based on the PID screening results it appears that the intermittent stream functions as a losing stream during periods of runoff, recharging the shallow ground water aquifer. Low PID readings, directly below the surface of the intermittent stream suggest that a petroleum smear zone has not intercepted the stream bottom. Higher contaminant concentrations would be expected in the 0-4' sample if contaminated groundwater were being discharged to the stream. No staining was observed in surface soils. Additional ground-water monitoring is required to evaluate the possible impacts to the intermittent stream.

Stream sediments beneath the new AST-area curtain drain discharge pipe have been impacted by petroleum contamination as described in section 4.5.2. The nature and source of contamination has not been determined. Possible options include a leak from the AST area or associated piping or runoff from the site, which is collecting at the depression formed in the area of the culvert.

The Poultney River is approximately 1,000 feet south of the curtain drain discharge pipe and former AST source area and could be impacted by the contaminant flow in the intermittent stream. Ground water and surface water measurements should be collected to determine if ground water is being discharged to the intermittent stream during periods of high stream flow. The discharge from the curtain-drain pipe would need to be sampled to determine contaminant concentrations being discharged to the intermittent stream during periods of flow.

### Indoor Air Quality

Subsurface structures such as basements and crawl spaces often act as preferential pathways for vapor migration due to the presence of relatively lower pressure in the structure than that found in the surrounding soils.

The on-site storage buildings located downgradient of the fuel-dispensing island, and former kerosene UST location, have stone foundations. The presence of gasoline contamination at GP-19, located adjacent to the on-site storage barn suggests that petroleum vapors could pose a threat to indoor air quality.

### Drinking Water Quality

The threat of adverse health effects due to the ingestion of drinking water at the site is not likely. The site and adjacent properties are supplied with municipal drinking water.

### Confined Spaces and Underground Utilities

The accumulation of petroleum vapors in confined spaces or underground utilities such as conduits, crawl spaces and sewer lines, could be an explosion hazard if a significant amount of vapors were to accumulate and an ignition source was also present. Based on elevated PID readings and the detection of petroleum contamination in the sediments beneath the discharge pipe it appears that contaminant migration may be occurring from the AST source area through the curtain drain and to the intermittent stream. The nature and degree of petroleum, if present, being discharged from the pipe should be determined.

### Direct Soil/Ground-Water Contact

The risk of human exposure through direct contact with contaminated soils or ground water is considered to be moderate at the site, considering that the petroleum contaminated soils are located beneath unpaved areas and elevated PID readings have been detected within five feet of the ground surface. Direct contact with potentially contaminated soil or ground water is increased if any subsurface exploratory or



construction work is conducted in the vicinity of the former AST source area, fuel dispense island or buried utility lines.

## 6.0 CONCLUSIONS

Based on the results of the site investigation described above, Marin concludes the following:

- Petroleum has been released to the subsurface at the site. Free product was observed on soils and groundwater in the vicinity of the former bulk AST area and petroleum compounds above VGES were detected in ground-water samples collected at the site.
- At least two apparent contaminant source areas have been identified: the former bulk AST area and the fuel-dispensing island and/or associated piping. Additionally, contamination has been detected on the sediments adjacent to, and below, the curtain drain discharge pipe at the intermittent stream.
- Free product was encountered in monitoring wells installed in the former bulk AST storage area ranging in thickness from 0.02 to 2.73 feet.
- While excavating a test pit adjacent to the former delivery truck loading area, a vertical section of pipe was encountered. Some free product was observed in the piping, suggesting that the piping had not been purged. Based on the orientation of the pipe, the pipe appears to lead to the 20,000-gallon diesel AST.
- The extent of free-product appears to have been delineated to the north, east, and south. The western free product boundary has not been determined. Free product thickness in the downgradient monitoring wells within the plume, GP-9 (located within the intermittent stream) and GP-18, decreases to 0.02 to 0.18, respectively. No free product or dissolved phase petroleum hydrocarbons have been detected in monitoring wells GP-10 and GP-11 located about 75 feet down gradient of the free-product plume. The extent of free product, at a minimum appears to cover a 3,500 square foot area.
- The free-product plume appears to extend beneath the intermittent stream. Free product was measured on the water table at GP-9; however, the water table was

measured at approximately 6.19 feet below the stream-bed surface. Based on the PID screening results it appears that the intermittent stream functions as a losing stream, suggesting that the stream recharges the underlying ground-water aquifer. Higher contaminant concentrations would be expected in the 0-4' soil sample if contaminated groundwater were being discharged to the stream. The vertical gradient, based on surface water and ground-water measurements, as well as the vertical fluctuations in seasonal ground-water levels, has not been determined.

- Limited groundwater is present in the northern portion of the site due to the shallow depth to bedrock. GP-19 was installed at the bottom of the slope separating the potential source areas on the northern portion of the site (pump-island and current/former USTs) and those source areas on the southern part of the site. The gasoline additive MTBE was detected in the groundwater samples collected from GP-19. GP-19 was installed approximately 100 feet downgradient of the fuel-dispensing island and adjacent to piping leading from the new AST containment area to the pump-island. MTBE suggests that the petroleum source is gasoline. The downgradient extent of this contaminant plume appears to have been defined; however, the source of this concern has not been determined. A PID reading of 400 ppm was recorded on the 0-4' soil sample collected from the GP-12 boring advanced adjacent to the pump-island suggesting a possible release at the pump-island. The boring was terminated at four feet bgs due to refusal.
- Stream sediments of the intermittent stream beneath the new AST-area curtain drain discharge pipe have been impacted by petroleum contamination. The nature and source of contamination has not been determined. Possible options could be a leak from the AST area or associated piping or runoff from the site. Up-stream and off-site contributions are possible. The discharge from the curtain-drain pipe would need to be sampled to determine contaminant concentrations being discharged to the intermittent stream during periods of flow.

- The site is listed as an active petroleum release site due to contamination found during the removal of a 1,000-gallon kerosene UST from the upper portion of the site in 1998. Two existing monitoring wells are located adjacent to the UST area. A ground-water sample was collected by Malter Consulting, Inc., in November, 1998 following the tank removal, at the request of the VT DEC. No petroleum hydrocarbons were present in this sample. The sample may not have been representative of the shallow ground-water aquifer however, as the well was not purged prior to sampling due to limited ground water present. At the time of Marin's site visit investigation, there was insufficient ground water in the existing ground-water monitoring wells to collect samples.
- There was no evidence in the demolition debris area, at the southern portion of the site, suggesting that the disposal of hazardous materials or petroleum products has occurred in this area.
- The soil samples collected from the soil boring (GP-13) advanced at the reported former floor-drain-discharge location did not indicate significant levels of contamination. All PID readings were less than 4 ppm.
- No significant off-site sources of contamination were identified.

## 7.0 RECOMMENDATIONS

On the basis of results of this investigation and the conclusions stated above, Marin makes the following recommendations.

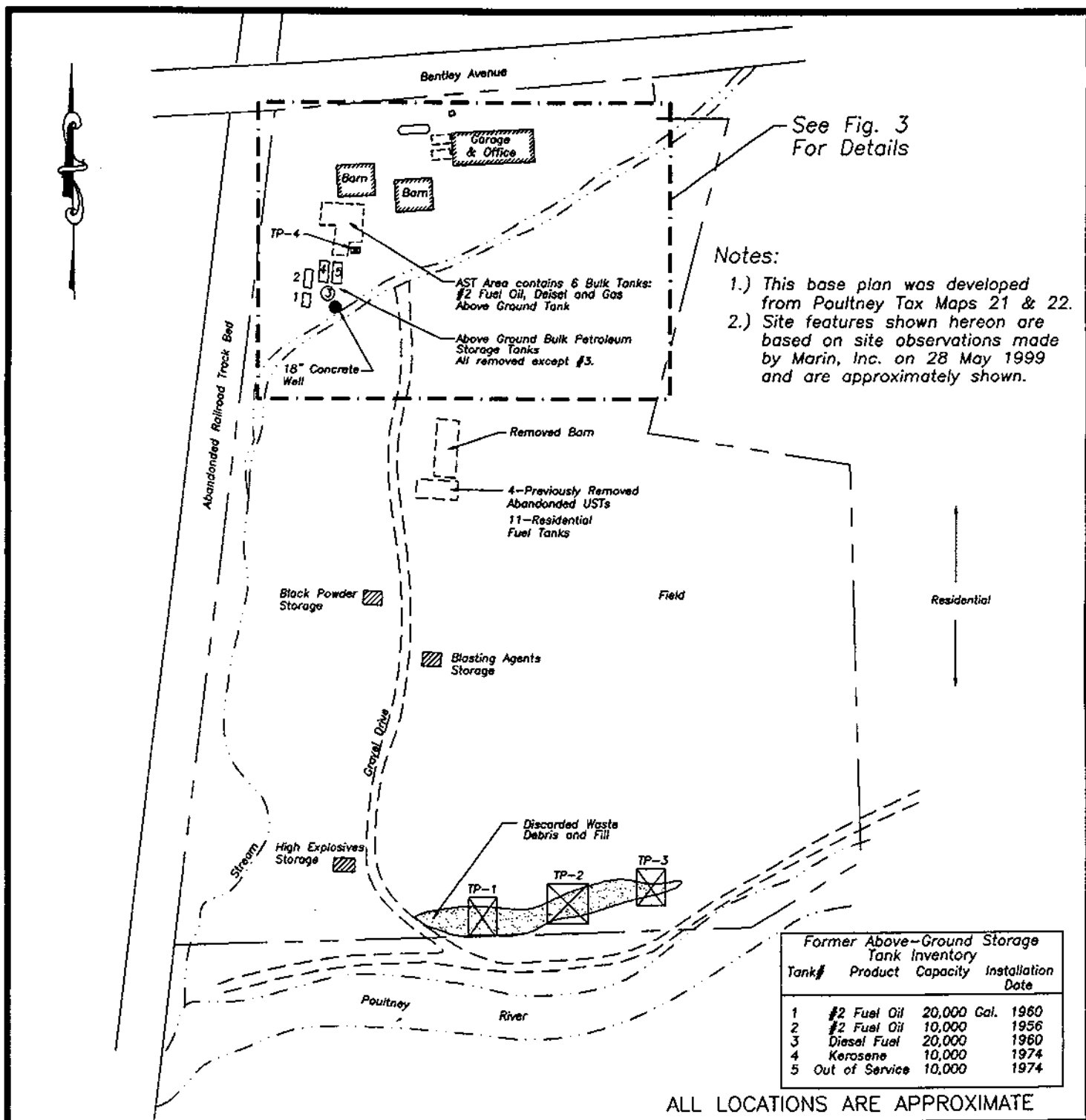
- 1 Permanent two-inch groundwater monitoring wells should be installed to fill data gaps, confirm the extent of contamination, determine the source of gasoline contamination and provide a viable means for manual recovery of free product. Recommended soil boring/monitoring well locations are shown on Figure 8.
- 2 Based on the presence of free product at the site, the permeability of the soils, the thickness of free product in the wells and the proximity of the free product plume to the intermittent stream, a free product recovery plan should be implemented. Weekly depth to water and depth to product measurements should be obtained using the existing one inch monitoring wells and newly installed two-inch monitoring wells starting as soon as possible. If present in recoverable quantities, free product recovery should also be implemented as soon as possible by hand bailing using dedicated bailers. Recoverable quantities of free product should be removed and placed in an appropriately labeled drum for future off-site removal as hazardous waste.
- 3 A free-product sample should be collected for petroleum identification and age dating to confirm the nature of the release resulting in free product on the water table in the AST source area.
- 4 A remedial action plan should be developed to address the free product on the water table and petroleum contaminated soils in the AST source area. Potential remediation technologies include:
  - manual recovery;
  - soil excavation;
  - short-term vacuum enhanced recovery; and,
  - Air-sparging with soil-vapor extraction.

At this time, based on the apparent limited nature of the free product and dissolved phase plume associated with the release, direct removal of soils from the source area should be considered as the most reasonable option. Stockpiling and/or land farming options should be explored.

If Vermont Groundwater Enforcement Standards are to be attained at the site then a Corrective Action Feasibility Investigation should be performed at the site to evaluate potential remedial alternatives. Current information suggests that soil-vapor extraction and air-sparging represent the remedial techniques most likely to prove effective at this site.

- 5 The 20,000-gallon diesel AST and associated piping should be purged of residual product and be removed from the source area to eliminate a potential ongoing source of free product. The product should be disposed in accordance with appropriate waste handling procedures.
- 6 The curtain drain system should be evaluated to ensure that current operations are being conducted using best management practices.





# LEGEND

MW-2 ● MONITORING WELL  
 TP-2 ☒ TEST PIT

0 40

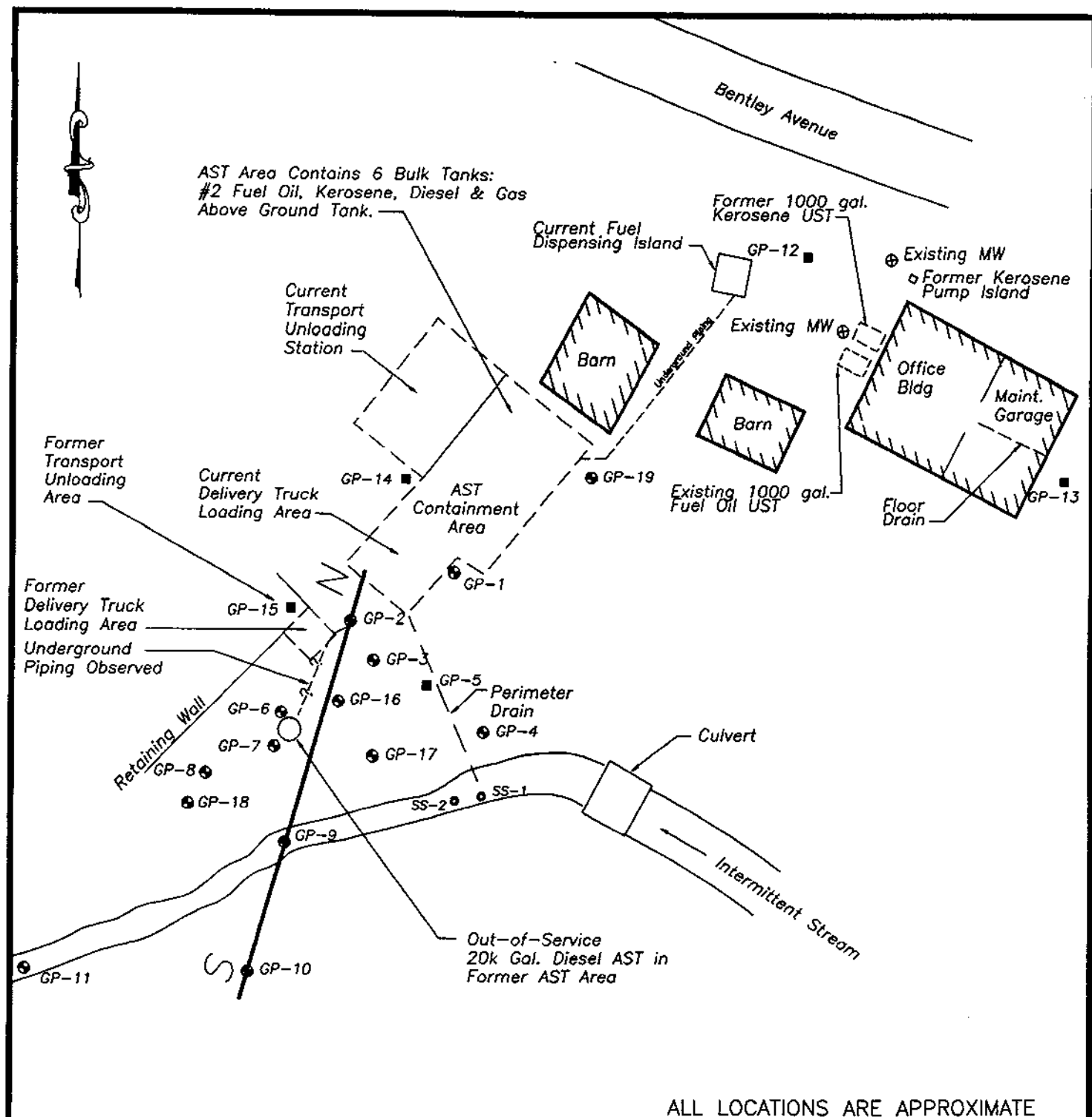
**MARIN**  
 ENVIRONMENTAL

FIGURE 2.  
 SITE PLAN

Bixby's  
 Poultney, VT

DRAWN BY: MJB DATE: 10/26/99 SCALE: 1"= 40'  
 APPROVED BY: DMA FILE No.: 990023sp2





ALL LOCATIONS ARE APPROXIMATE

# LEGEND

- GP-2 ● MONITORING WELL
- MW ⊕ EXISTING 2" MONITORING WELL
- SS-1 ● SEDIMENT SAMPLING LOCATION
- GP-5 ■ GEOPROBE SOIL BORING
- S — N CROSS-SECTION LINE (see Fig. 7)

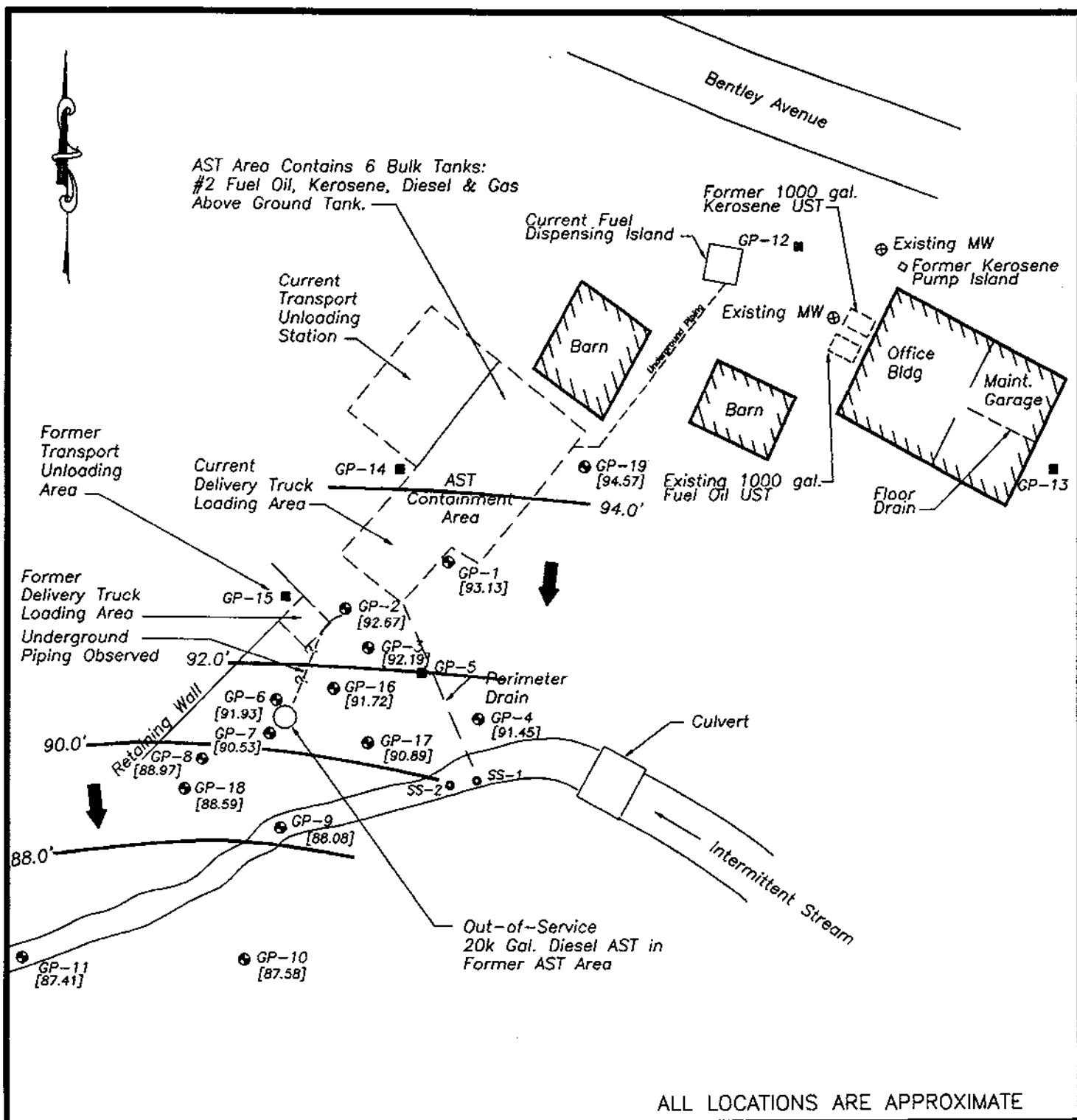


**MARIN**  
ENVIRONMENTAL

FIGURE 3.  
SITE PLAN  
WITH MONITORING WELL LOCATIONS

Bixby's  
Poultney, VT

DRAWN BY: MJB	DATE: 09/21/99	SCALE: 1" = 50'
APPROVED BY: DMA	FILE No.: 990023spR01	



ALL LOCATIONS ARE APPROXIMATE

# LEGEND

- GP-2 ● MONITORING WELL
- [88.59] GROUND WATER ELEVATION (FT.)
- 88.0' — GROUND WATER ELEVATION CONTOUR (FT.)
- ← INFERRED GROUND WATER FLOW DIRECTION



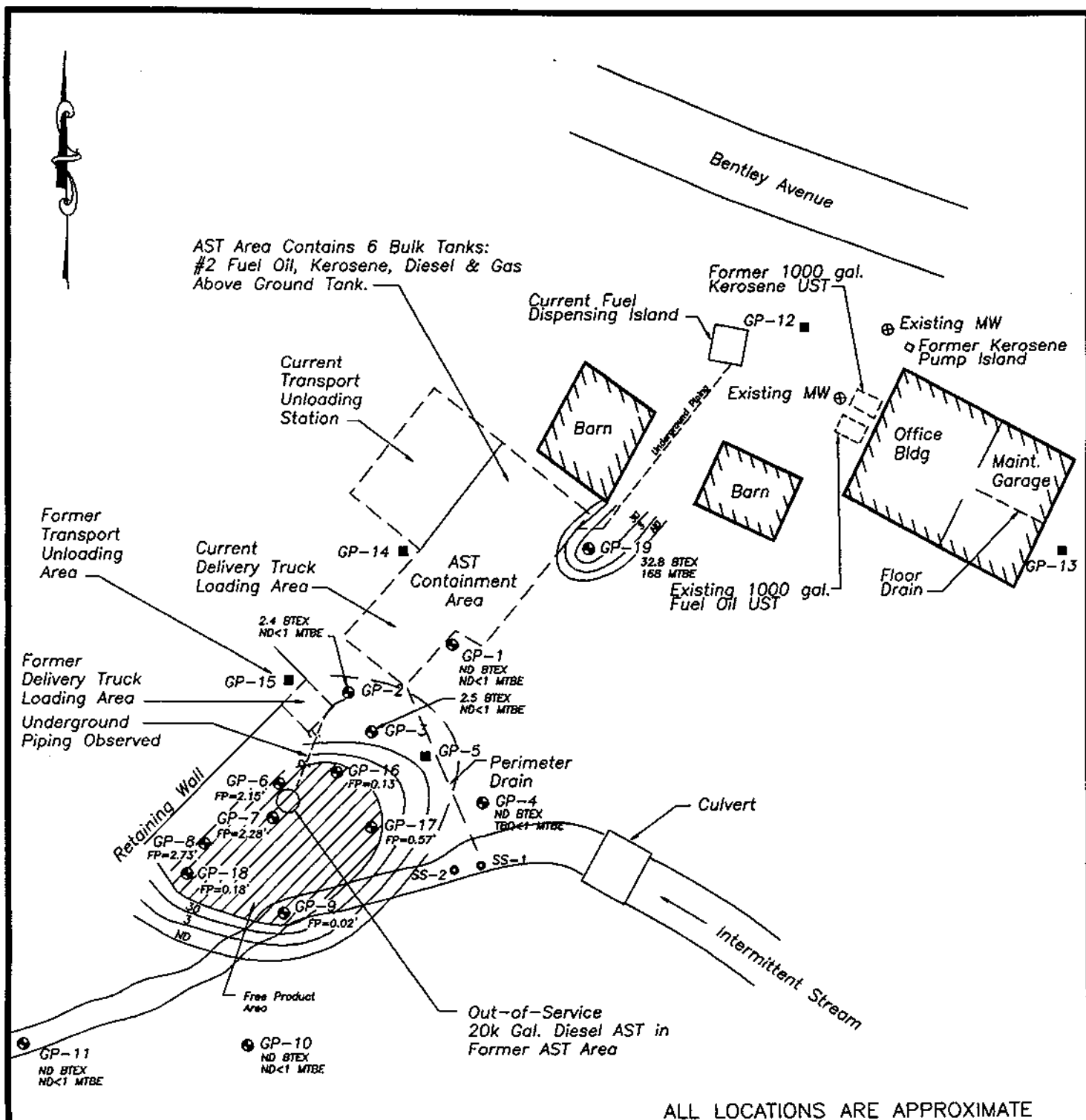
**MARIN**  
ENVIRONMENTAL

## FIGURE 4. GROUNDWATER CONTOUR MAP

Monitoring Date: 09 September 1999

Bixby's  
Poultney, VT

DRAWN BY: MJB	DATE: 09/21/99	SCALE: 1" = 50'
APPROVED BY: DMA	FILE No.: 990023spr01	



ALL LOCATIONS ARE APPROXIMATE

# LEGEND

GP-2 ⊕ MONITORING WELL

— BTEX CONTOUR, (μg/L)

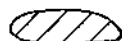
ND<1 BTEX TOTAL BTEX CONCENTRATION, (μg/L)

ND<1 MTBE MTBE CONCENTRATION, (μg/L)

TBQ TRACE BELOW QUANTITATION LIMIT

ND NONE DETECTED

FP=2.73' DEPTH OF FREE PRODUCT



FREE PRODUCT AREA

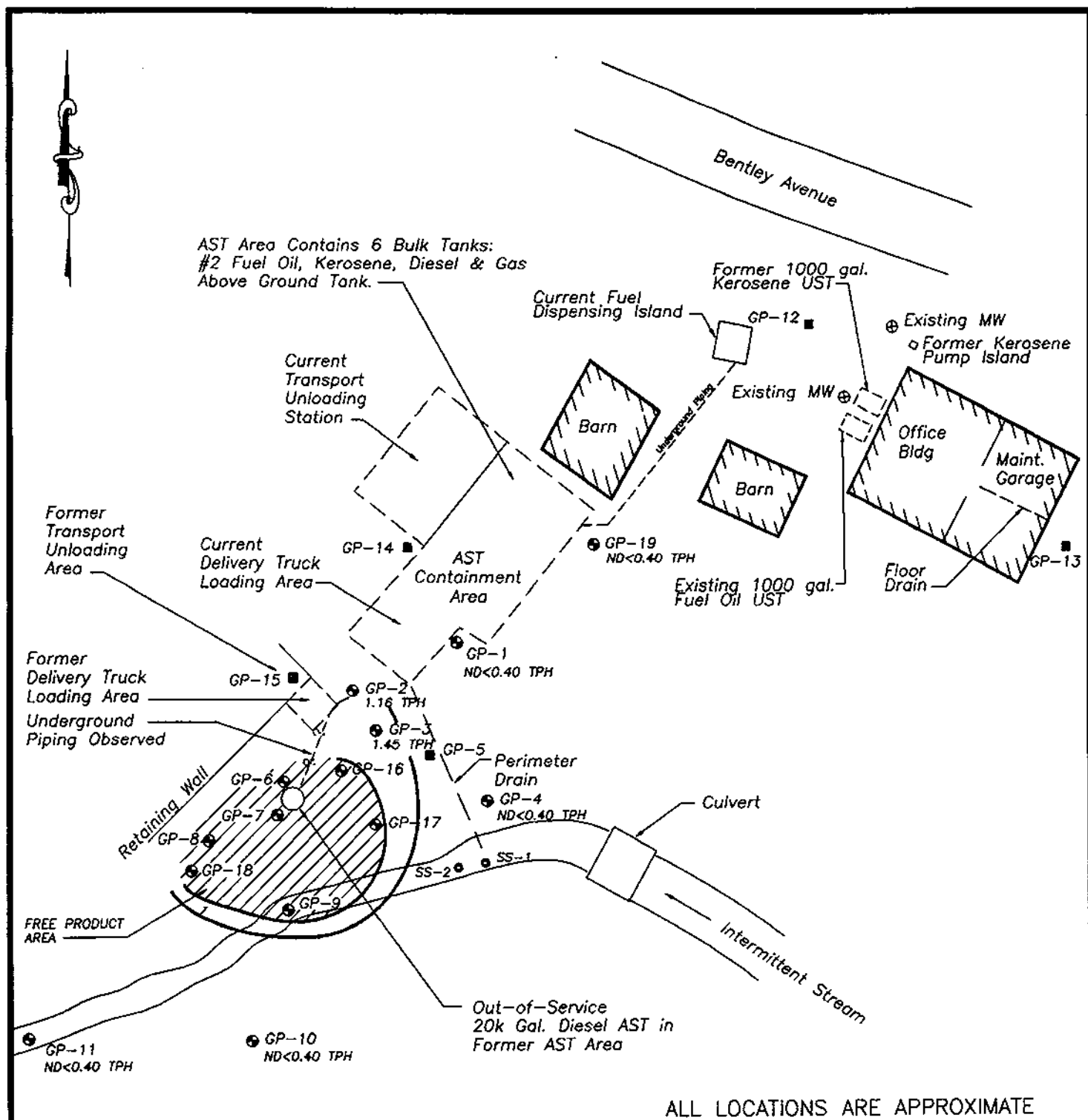


**MARIN**  
ENVIRONMENTAL

FIGURE 5.  
CONTAMINANT DISTRIBUTION MAP-BTEX & MTBE  
Monitoring Date: 09 September 1999

Bixby's  
Poultney, VT

DRAWN BY: MJB	DATE: 09/21/99	SCALE: 1"= 50'
APPROVED BY: DMA	FILE No.: 990023spr01	



ALL LOCATIONS ARE APPROXIMATE

# LEGEND

- GP-2 ● MONITORING WELL
- TPH CONTOUR, (mg/L)
- ND<0.40 TPH TPH CONCENTRATION, (mg/L)
- ND NONE DETECTED
- ▨ FREE PRODUCT AREA

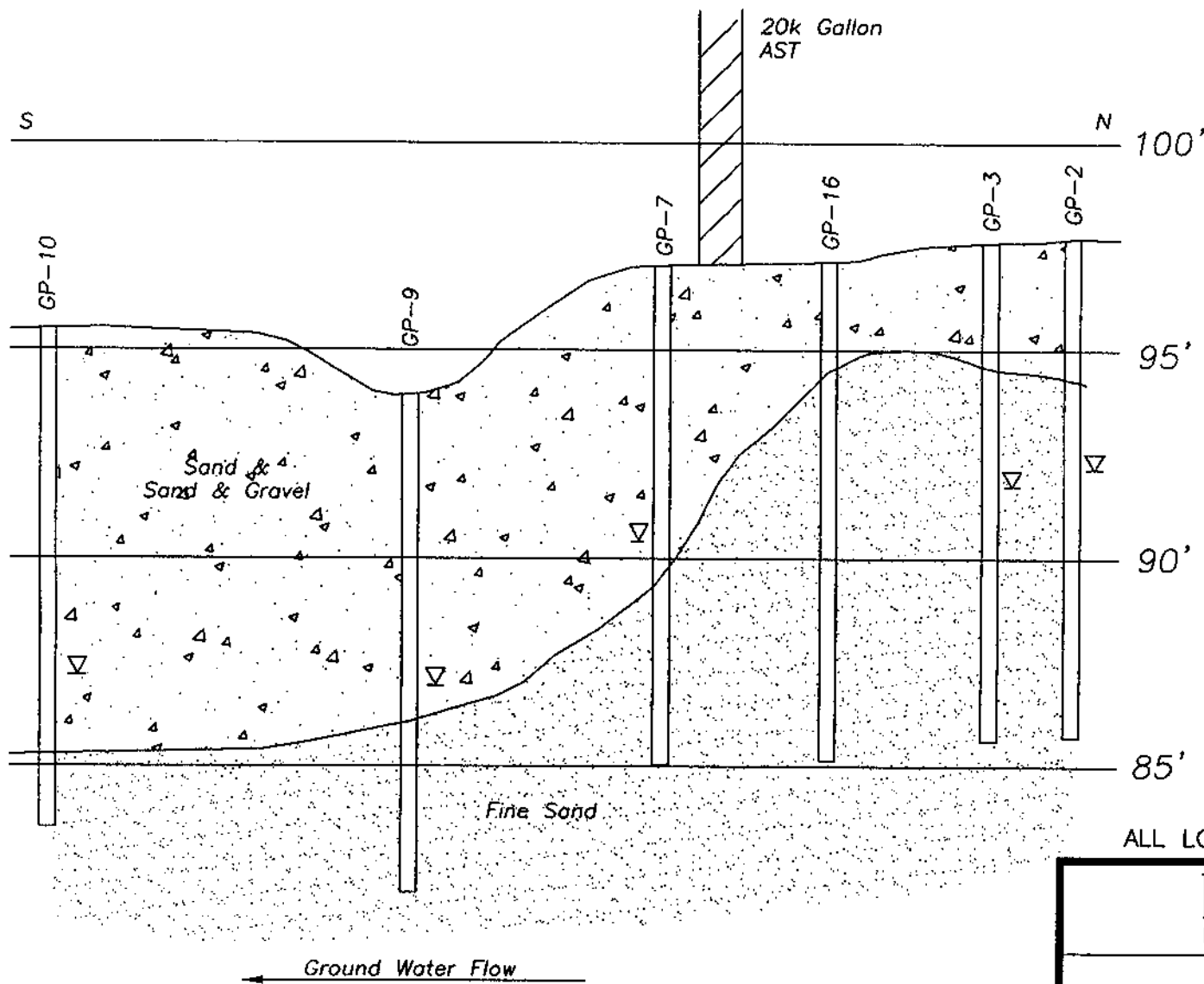
0 50

**MARIN**  
ENVIRONMENTAL

FIGURE 6.  
TPH DISTRIBUTION MAP—TPH  
Monitoring Date: 09 September 1999

Bixby's  
Poultney, VT

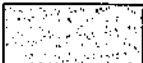

DRAWN BY: MJB	DATE: 09/21/99	SCALE: 1"= 50'
APPROVED BY: DMA	FILE No.: 990023spR01	



Scale: Horiz.: 1"=20'  
Vert.: 1"=4'

ALL LOCATIONS ARE APPROXIMATE

# LEGEND

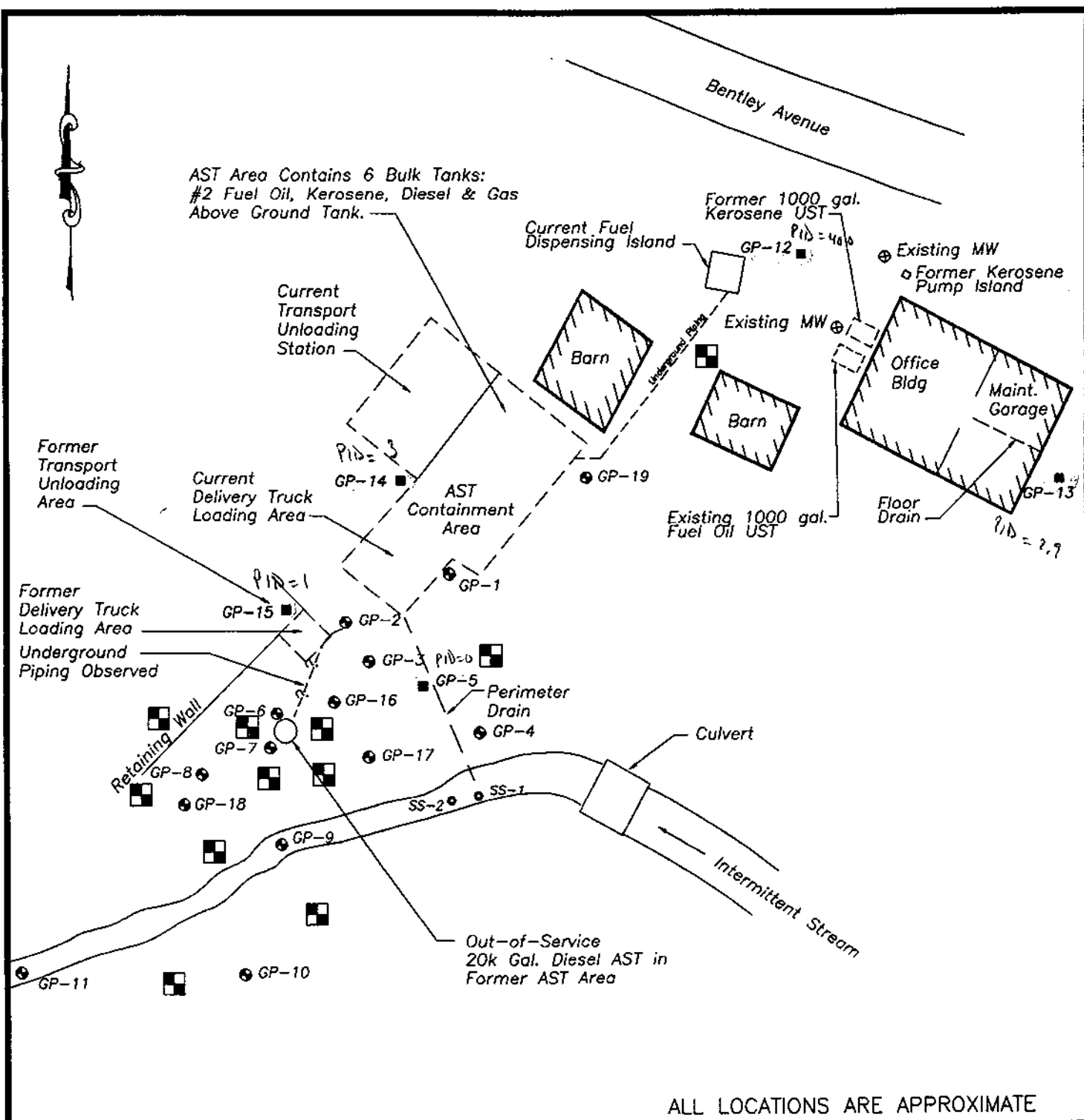
-  Predominantly Fine Sands
-  Sand And Sand & Gravel

**MARIN**  
ENVIRONMENTAL

## FIGURE 7. HYDROLOGIC CROSS-SECTION OF SOURCE AREA







Bixby's  
Poultney, VT

DRAWN BY: MJB	DATE: 10/25/99	SCALE: -----
APPROVED BY: DMA	FILE No.: 990023xsect	



ALL LOCATIONS ARE APPROXIMATE

### LEGEND

- GP-2  MONITORING WELL  
MW  EXISTING 2" MONITORING WELL  
SS-1  SEDIMENT SAMPLING LOCATION  
GP-5  GEOPROBE SOIL BORING  
S  N CROSS-SECTION LINE (see Fig. 7)  
 PROPOSED MONITORING WELL

**MARIN**  
ENVIRONMENTAL

FIGURE 8.  
PROPOSED ADDITIONAL  
WELL LOCATIONS

Bixby's  
Poultney, VT

DRAWN BY: MJB	DATE: 09/21/99	SCALE: 1"= 50'
APPROVED BY: DMA	FILE No.: 990023spr01	

**TABLE 1. GROUND-WATER ELEVATION CALCULATIONS****Bixby's  
Poultney, VT****Monitoring Date: 09 September 1999**

<b>Well I.D.</b>	<b>Top of Casing Elevation</b>	<b>Depth to Product</b>	<b>Depth to Water</b>	<b>Product Thickness</b>	<b>Corrected Depth to water</b>	<b>Water Table Elevation</b>
GP-1	100.00	-	6.87	-	-	93.13
GP-2	98.76	-	6.09	-	-	92.67
GP-3	100.29	-	8.10	-	-	92.19
GP-4	100.00	-	8.55	-	-	91.45
GP-6	99.71	7.35	9.50	2.15	7.78	91.93
GP-7	99.80	8.81	11.09	2.28	9.27	90.53
GP-8	99.76	10.24	12.97	2.73	10.79	88.97
GP-9	97.48	9.38	9.40	0.02	9.38	88.10
GP-10	99.12	-	11.54	-	-	87.58
GP-11	96.56	-	9.15	-	-	87.41
GP-16	100.26	8.51	8.64	0.13	8.54	91.72
GP-17	99.12	8.12	8.69	0.57	8.23	90.89
GP-18	99.26	10.63	10.81	0.18	10.67	88.59
GP-19	102.35	-	7.78	-	-	94.57

All values reported in feet relative to an arbitrary 100' datum.

"-" not applicable

**TABLE 2. SUMMARY OF GROUND-WATER ANALYTICAL RESULTS**

**Bixby's  
Poultney, Vermont**

**09 September 1999**

Well I.D.	Benzene	Toluene	Ethyl- benzene	Xylenes	Total BTEX	1,3,5 Trimethyl Benzene	1,2,4 Trimethyl benzene	Napthalene	MTBE	TPH
GP-1	ND<1	ND<1	ND<1	ND<1	ND	ND<1	ND<1	ND<1	ND<1	ND<0.40
GP-2	ND<1	ND<1	ND<1	2.4	2.4	2.8	4.9	8.2	ND<1	1.16
GP-3	ND<1	ND<1	ND<1	2.5	2.5	4.6	10.0	5.1	ND<1	1.45
GP-4	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	TBQ<1	ND<0.40
GP-6	--	--	--	--	--	--	--	--	--	--
GP-7	--	--	--	--	--	--	--	--	--	--
GP-8	--	--	--	--	--	--	--	--	--	--
GP-9	--	--	--	--	--	--	--	--	--	--
GP-10	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<0.40
GP-11	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<0.40
GP-16	--	--	--	--	--	--	--	--	--	--
GP-17	--	--	--	--	--	--	--	--	--	--
GP-18	--	--	--	--	--	--	--	--	--	--
GP-19	18.0	14.8	ND<5	ND<5	32.8	ND<5	ND<5	ND<5	168	ND<0.40
GP-11 (Dup)	ND<1	ND<1	ND<1	ND<1	ND	ND<1	ND<1	ND<1	ND<1	ND<0.40
trip blank	ND<1	ND<1	ND<1	ND<1	ND	ND<1	ND<1	ND<1	ND<1	--
VGES	5	1,000	700	10,000	---	5	4	20	40	--

**Notes:**

Results in micrograms per liter (parts per billion) except for TPH which is milligrams per liter (parts per million)

Shading represents exceedance of VGES

GP-6, GP-7, GP-8, GP-9, GP-16, GP-17, GP-18 were not sampled due to the presence of free product.

VGES = Vermont Groundwater Enforcement Standards, shaded area denotes exceedance of VGES.



**TABLE 3. SUMMARY OF INTERMITTENT STREAM SEDIMENT ANALYTICAL RESULTS**

**Bixby's  
Poultney, Vermont**

**09 September 1999**

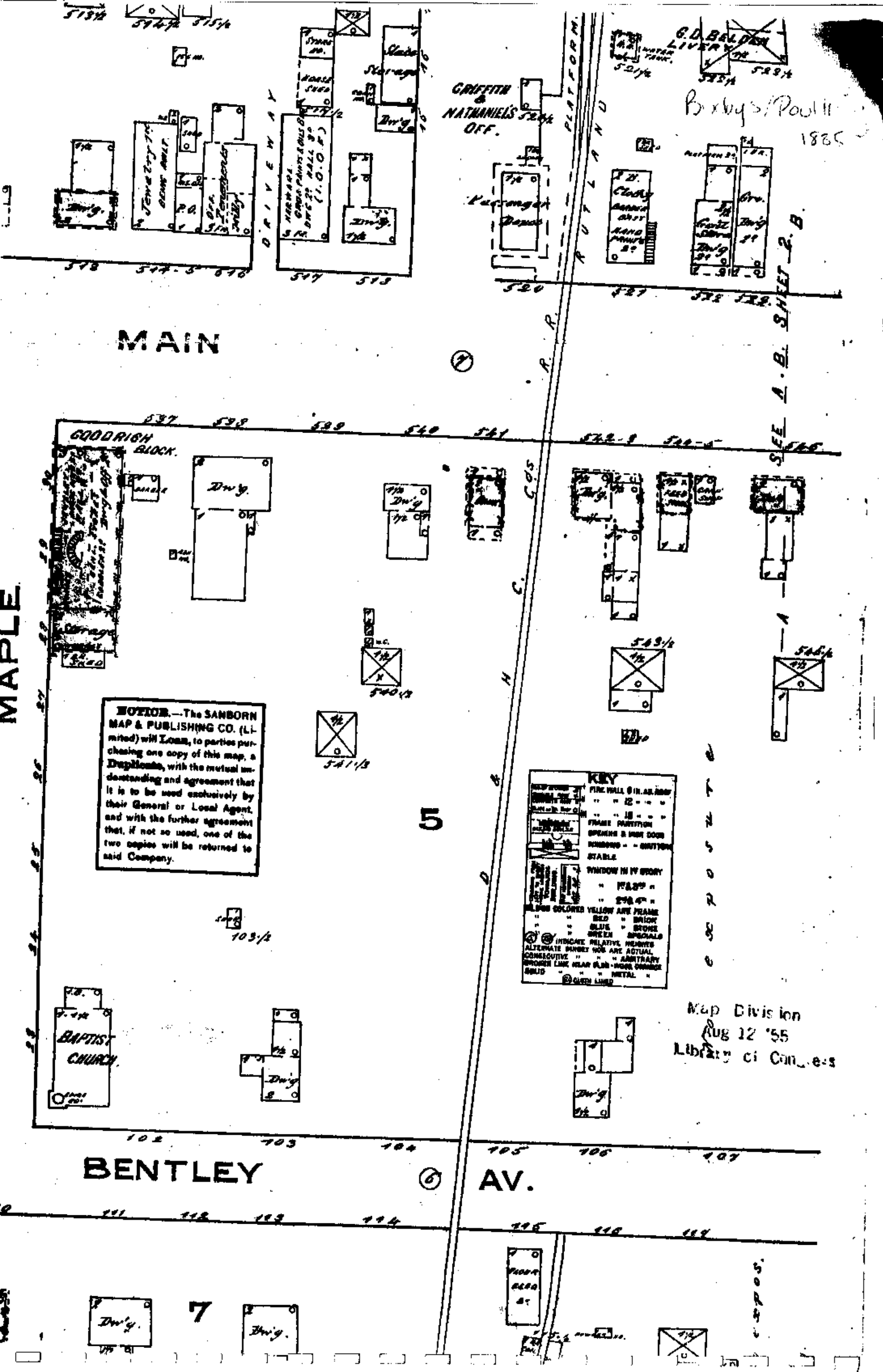
Well I.D.	Benzene	Toluene	Ethyl- benzene	Xylenes	Total BTEX	1,3,5 Trimethyl Benzene	1,2,4 Trimethyl benzene	Napthalene	MTBE	TPH
SS-1	21.3	77.1	22.2	115	166	21.0	44.0	89.8	ND <10	880
SS-2	12.1	56.4	13.3	63.0	114.8	19.1	38.7	50.7	ND <10	45

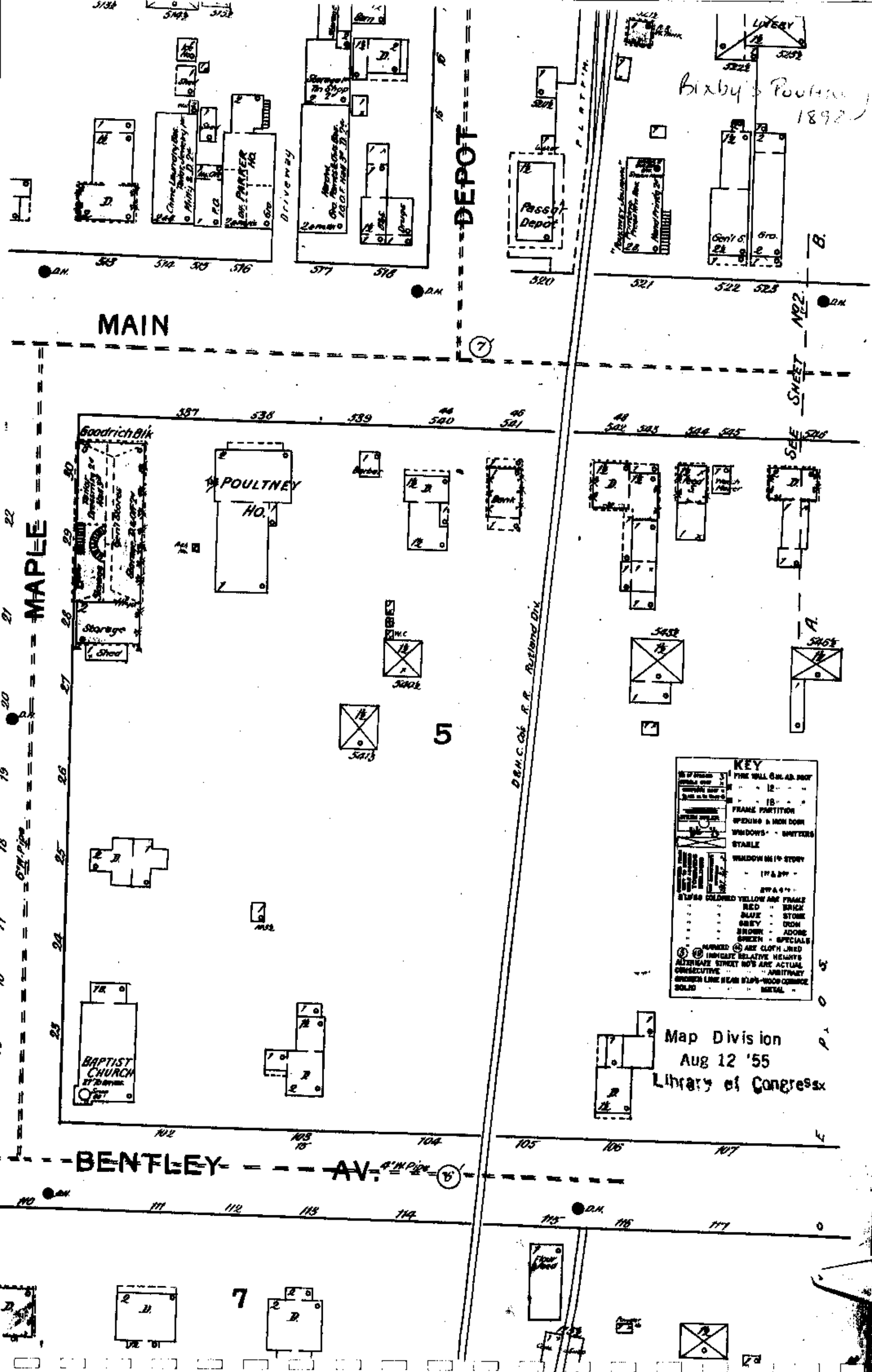
**Notes:**

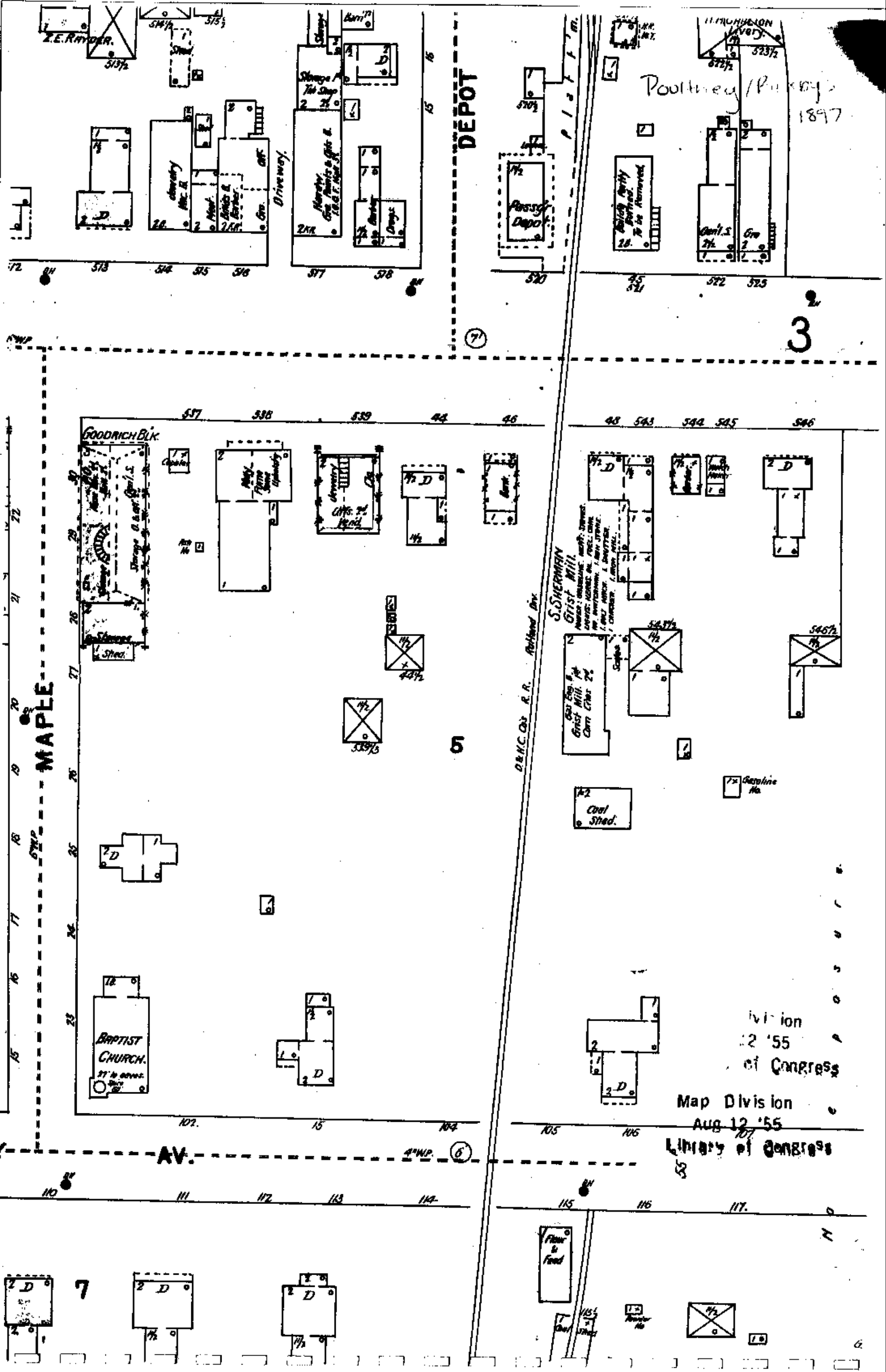
Results in micrograms per kilogram unless otherwise noted.

**APPENDIX A**

**SANBORN MAPS**







DEPOT

Pootney/Pootney  
1897

3

MAPLE

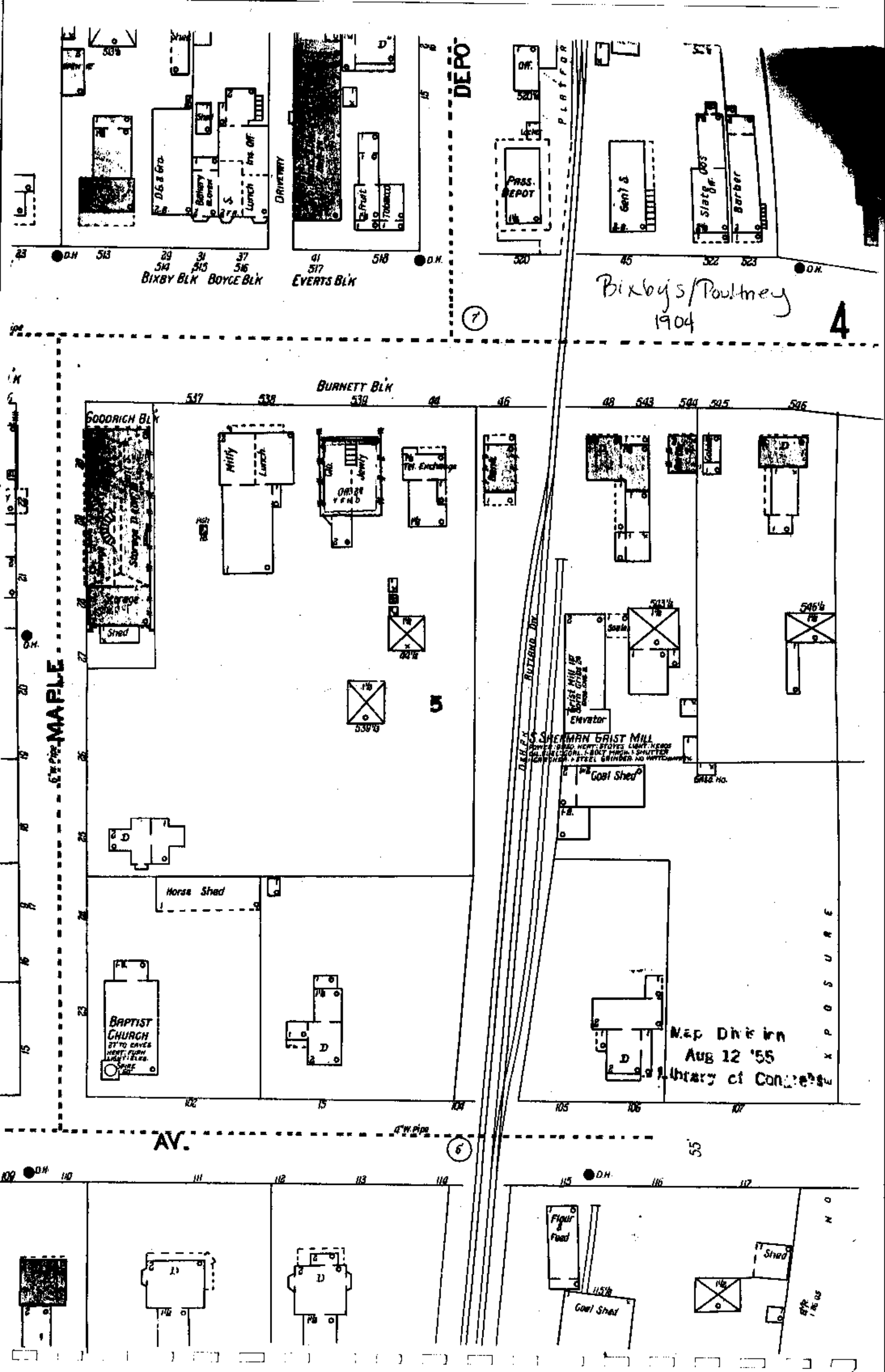
5

BAPTIST CHURCH

S. SHERMAN

Grist Mill

Map Division  
Aug 12 '55  
Library of Congress



DEPO

Bixbys/Poultney  
1904

4

6" Maple

BURNETT BLK

GOODRICH BLK

BAPTIST CHURCH  
STY TO EAVES  
HORN FLUSH  
LIGHT-TELES.

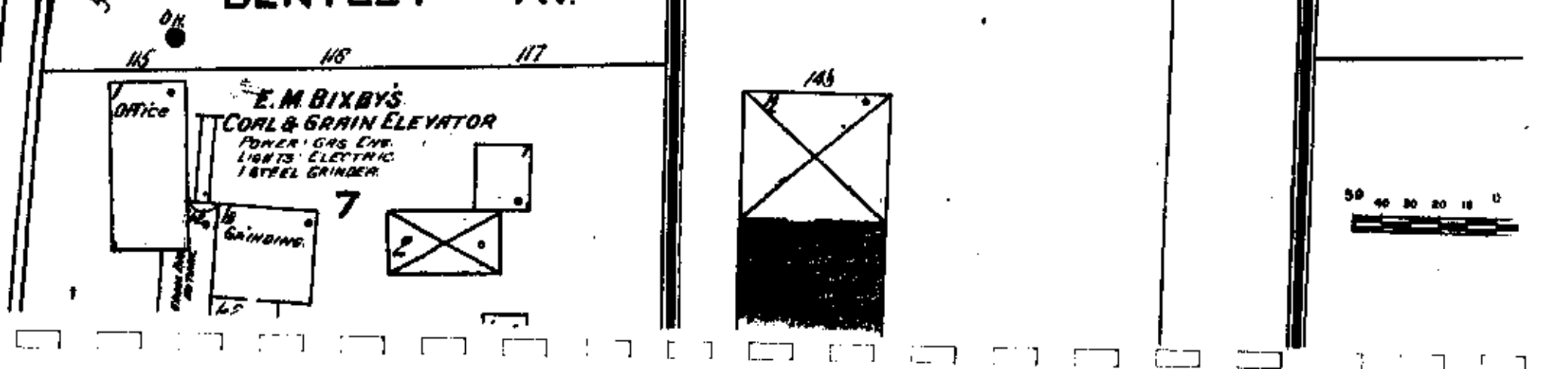
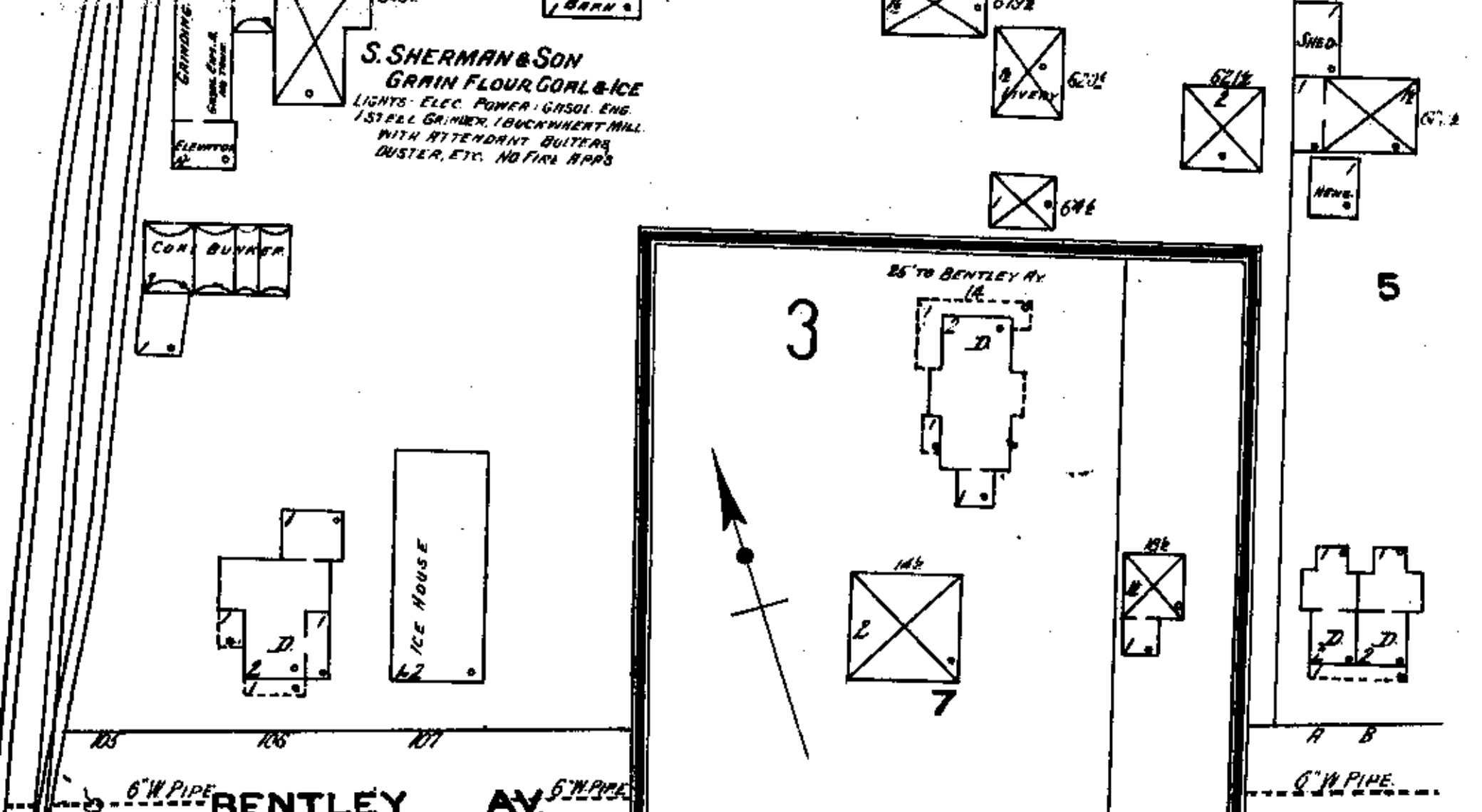
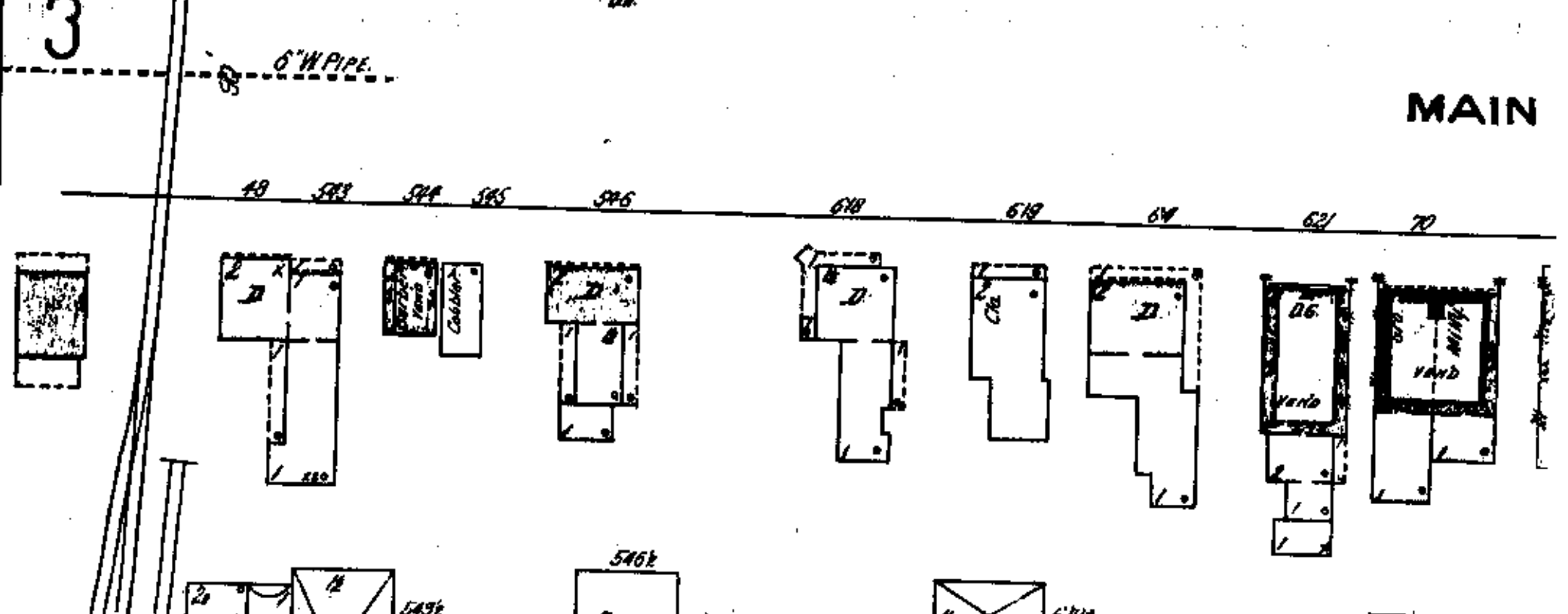
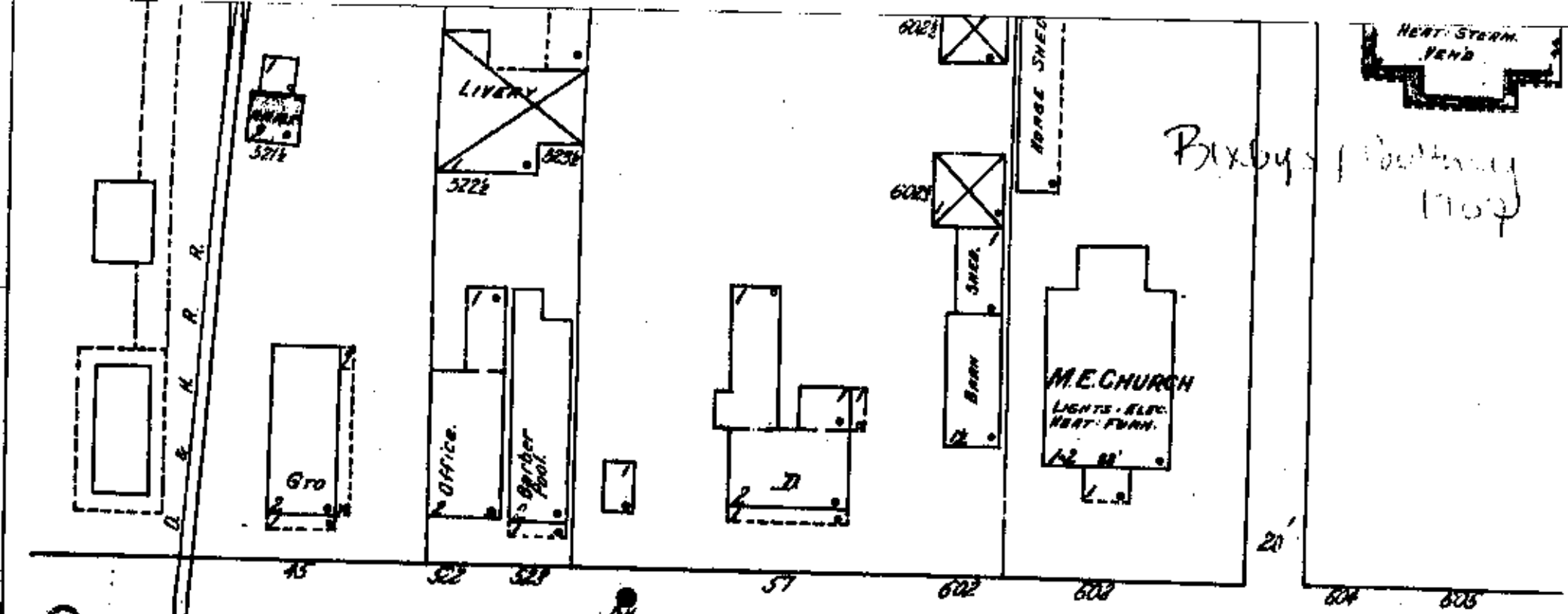
SHERMAN GRIST MILL  
POWER: 2000 H.P. STOVES: 1000 LBS.  
GRINDING: 1000 LBS. 1-BOLT HIGH 1-SHUTTER  
1-GRINDER 1-STEEL GRINDER NO MATCHES

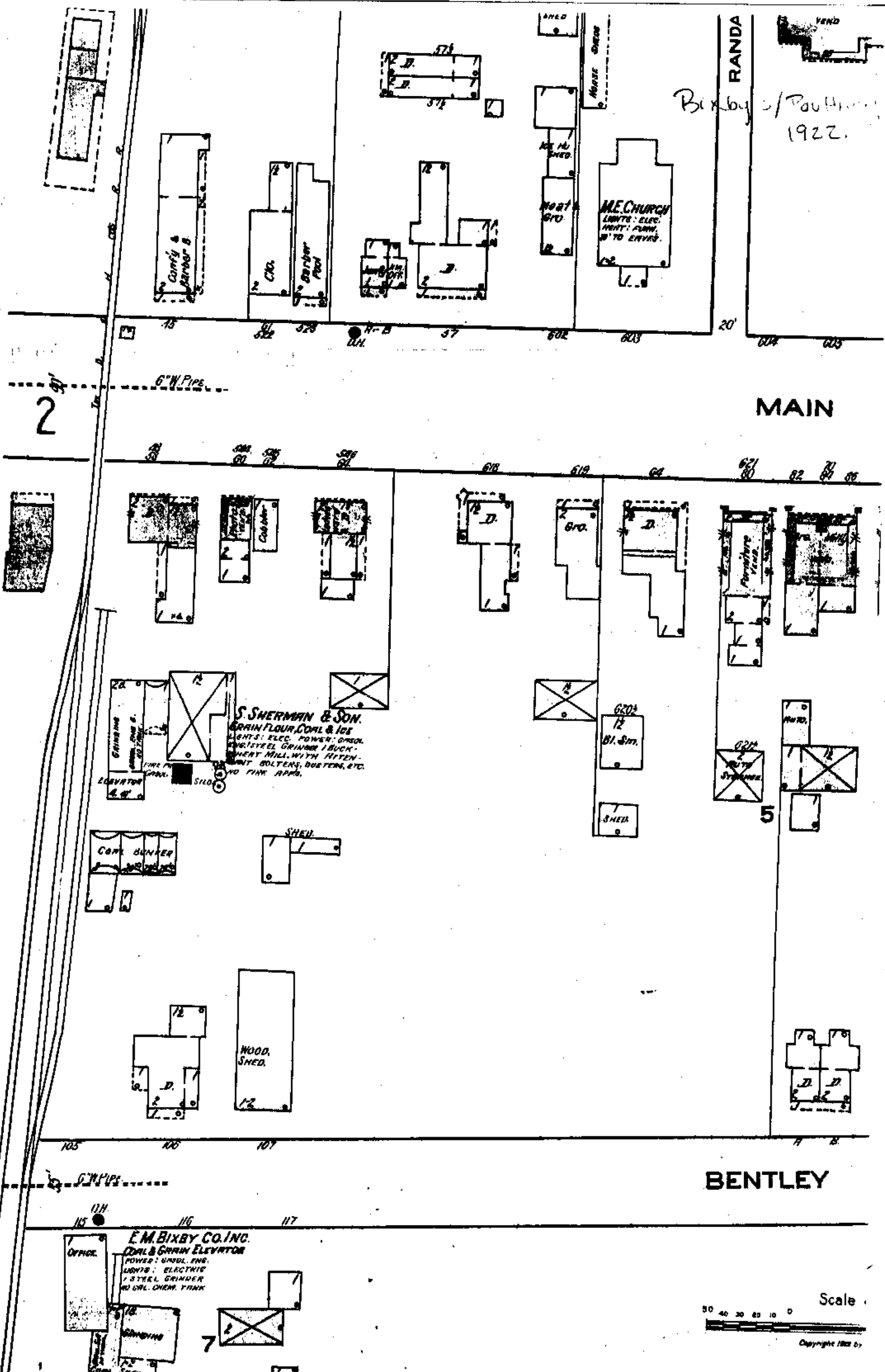
Map Division  
Aug 12 '55  
Library of Congress

AV.

6

EXPLOSIVE



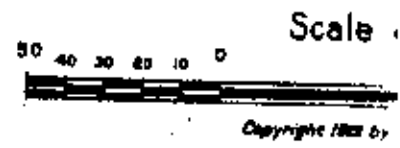


Bixby & Paul  
1922.

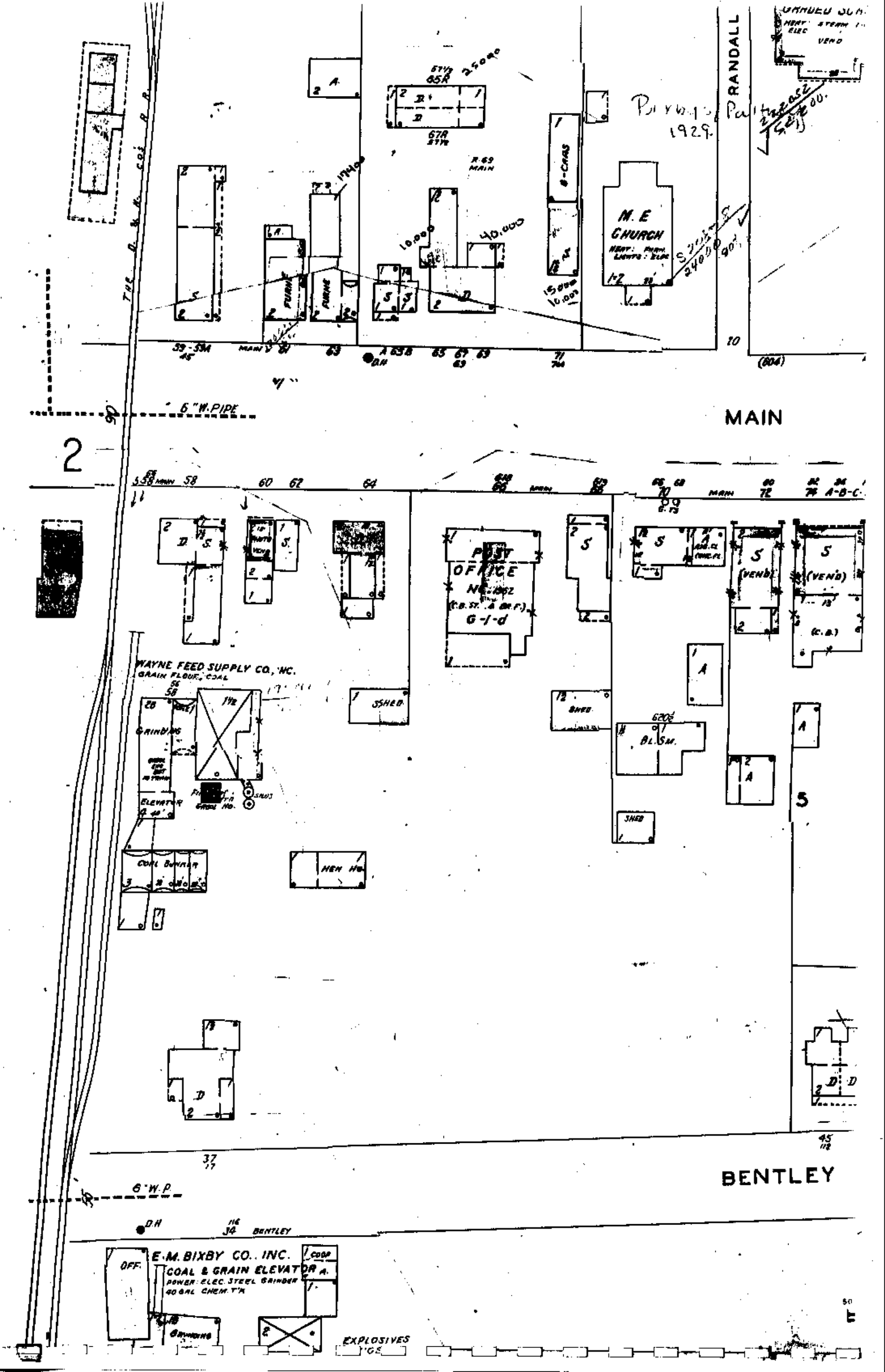
MAIN

BENTLEY

**E.M. BIXBY CO. INC.**  
COAL & GRAIN ELEVATOR  
POWER: GASOL. ENG.  
LIGHTS: ELECTRIC  
STEEL GRINDER  
NO OIL. CHEM. FRANK







**APPENDIX B**

**PREVIOUS SITE ASSESSMENTS**

ENVIRONMENTAL SITE ASSESSMENT - PHASE I

BIXBY'S  
34 BENTLEY AVENUE  
POULTNEY, VERMONT

Prepared for:

Green Mountain Bank  
Rutland, Vermont

Prepared by:

Nobis Engineering, Inc.  
Concord, New Hampshire

December 1991  
File No. 91-460.3

Water Supply Information

Poultney's municipal water supply well is located approximately 2,000± feet to the west of the subject site. A review of the estimated Well Head Protection Area (WHPA) on file with the VTDEC Water Supply Division indicates the subject site is not located within the WHPA.

SPCC Plan Requirements

The Code of Federal Regulations under Title 40 Part 112- Oil Pollution Prevention (40 CFR Part 112) outlines required procedures, methods, and equipment to prevent oil spills from reaching United States waterways. As part of the regulations, above-ground bulk storage facilities are required to provide secondary containment equivalent to the largest single tank plus adequate freeboard for precipitation. In addition, the containment area must be sufficiently impervious to contain the spill. The Bixby's facility did not appear to have secondary containment provisions. Regulation 40 CFR Part 112 requires facilities to develop and have available a Spill Prevention Control and Countermeasures (SPCC) plan. Mr. Keyser indicated the SPCC plan for the site is currently being updated.

SUMMARY AND CONCLUSIONS

A Phase I environmental site assessment was performed at Bixby's coal and petroleum storage/distribution facility located at 34 Bentley Avenue in Poultney, Vermont. On the basis of this preliminary assessment, the following conclusions are presented:

- 1) The site consisted of two lots comprising an estimated 16.3± acres of land occupied by four on-site structures and associated coal and petroleum storage/distribution facility. On-site structures included two barns, a coal shed and an office/garage building. The office/garage area was the only heated structure on the site. This building was heated by a forced hot air system fueled by a 1,000± gallon fuel oil underground storage tank (UST). Utilities present at the site included municipal water and sewer.
- 2) Based on field observations and a review of a USGS topographic map of the site area, groundwater beneath the site is likely to flow in a general southerly direction. However, the installation of monitoring wells and long-term groundwater level monitoring would be necessary to assess actual site groundwater flow conditions.
- 3) Observations made during the November 12, 1991 site visit indicate there are two 1,000± gallon USTs at the site reportedly containing #2 fuel oil and gasoline. The above-ground petroleum bulk plant contains four active tanks and one out-of-use tank. Product stored in bulk includes #2 fuel oil, diesel fuel, and kerosene. Other chemicals and petroleum products observed on-site include diesel additive, fuel oil additive, anti-freeze, motor oil, waste oil, hydraulic oil, mineral spirits, and air tool oil. These products were stored in the garage and coal shed.
- 4) During the November 12, 1991, site visit, possible waste asbestos-containing material (ACM) pipe insulation was observed in a pile in a barn (the second barn shown on Figure 2) at the site. Waste ACMs are required to be disposed of in accordance with applicable local, state, and federal regulations.
- 5) Discarded waste debris was observed at several locations across the site including automotive parts, wood and metal debris and empty metal drums. Several abandoned, reportedly empty, petroleum storage tanks were also observed stockpiled at the site. No

December 13, 1991

surficial evidence of petroleum product or chemical spillage/leakage was observed in the vicinity of the discarded drums and storage tanks.

- 6) Evidence of a potential hazardous waste or petroleum product release to the site environment observed during the November 12, 1991, site visit included an oily sheen observed in a concrete well located adjacent to the bulk storage tanks and surficial soil staining observed in the vicinity of the above-ground bulk storage tanks.
- 7) The Code of Federal Regulations 40 CFR Part 112 requires bulk petroleum storage facilities to provide secondary spill containment equivalent to the largest single tank with adequate freeboard for precipitation. Bixby's did not appear to have secondary containment provisions.
- 8) Review of VTDEC files indicated no reported chemical, oil, or hazardous waste spills at the subject site. There are two gasoline stations located potentially upgradient of the site, Poultney Mobil and Herald's Garage (Citgo). The only reported incident in VTDEC files pertaining to either facility indicated some soil contamination present during the removal of a gasoline UST from the Poultney Mobil Station in 1986. Poultney Auto Supply, also located potentially upgradient from the site, is on the Vermont Hazardous Waste Sites List because of a leaking UST removed from the facility in 1990. There was no indication in the VTDEC files of the extent of contamination at the Poultney Auto Supply facility.
- 9) Review of VTDEC Water Supply Division files indicates the subject site is located approximately 2,000± feet to the east of the Poultney water supply well. The files indicate that the site is not located within the Well Head Protection Area for this well.

In summary, there is evidence to suggest the possible presence of hazardous waste releases to the site environment within the context of Vermont Statutes Annotated Chapter 159. Surficial soil staining was observed in the vicinity of the petroleum bulk storage tanks. An oily sheen was also observed on water in a concrete well near the bulk storage plant. Further site investigations, including subsurface explorations and laboratory analyses of soil and groundwater would be necessary to determine environmental conditions at the site including the impacts, if any, of off-site sources.

### RECOMMENDATIONS

Based on the results of this preliminary assessment the following comments and recommendations are offered:

- 1) It is recommended that the site owner review facility bulk petroleum storage practices with respect to the requirements of Code of Federal Regulations CFR 40 Part 112.
- 2) The installation of groundwater monitoring wells at the site is recommended. Sampling and analysis of groundwater will provide information to determine if the observed surficial soil staining, on-site USTs, and discarded petroleum storage tanks have impacted soil and groundwater quality at the site. Such work would also be necessary to assess the impact, if any of potential upgradient facilities on the site environment.
- 3) Subsurface soil sampling and analysis is recommended in the areas of surficial soil staining observed in the vicinity of the above-ground petroleum storage tanks and in the vicinity of numerous discarded petroleum storage tanks. Sampling and analysis would be completed to determine the lateral extent and depth of any contaminated soils.

- 4) Sampling and analysis of possible waste ACMs observed in a pile in the second barn is recommended. If determined to be ACMs, those wastes should be disposed of in accordance with local and state regulatory guidelines or requirements.
- 5) The location and nature of the discharge receptor for the garage floor drain should be determined so that its status with respect to current VTDEC requirements can be reviewed.
- 6) It is recommended that the various used drums, USTs, and any contents that may be present be disposed of in accordance with applicable local, state and federal regulations.


Thank you for the opportunity to be of service to Green Mountain Bank. If you have any questions, please do not hesitate to call us at your convenience.

Very truly yours,

NOBIS ENGINEERING, INC.



Robin Mongeon  
Project Engineer



Nannu Nobis, P.E.  
Principal



Roger B. Keilig, P.E.  
Project Manager

Attachments:      Figures  
                         Appendices

# PHASE 1 SITE ASSESSMENT

Bixby's, Poultney, Vermont

Prepared for Albark, Rutland, Vermont

July 8, 1997

Malter Consulting, Inc.  
P.O. Box 176  
Waterbury, Vermont 05676

## 5.0 SUMMARY

Based on the information reviewed and summarized in this Phase I Environmental Site Assessment Report, Malter Consulting, Inc. presents the following summary with regard to the Bixby's property in Poultney, Vermont.

- \* Some oil stained soil was observed in the vicinity of the out of service 25,000 gallon vertical tank located south of the new bulk plant.
- \* No environmental liens were identified on the Bixby's property.
- \* A floor drain is located in the garage that daylight to the east on the bank above the intermittent stream. This is a prohibited activity under the Vermont DEC Floor Drain Procedures.
- \* To the north and east of the garage along Bentley Avenue are two Central Vermont Public Service (CVPS) utility poles, one with two transformers and one with one transformer on them. Pole 9-261 1/4 had two transformers and pole 9-261 1/2 had one transformer. I spoke with Matt McCoy, Environmental Health and Safety Coordinator for CVPS. He checked and determined that the transformers on both poles were Polychlorinated Biphenyl (PCB) contaminated. PCB contaminated transformers are those with PCB concentrations >50 parts per million and < 500 parts per million. CVPS has no immediate plans to change these transformers. It is the opinion of the author that the PCB contaminated transformers do not pose a risk to the site in their sealed condition.
- \* Review of Municipal and State files indicates no past or present evidence of hazardous waste generators or treatment, storage or disposal facilities on the Bixby's property.
- \* No oil spills were reported to the Vermont DEC for the Bixby's site.
- \* There are five active hazardous sites located within a mile of the Bixby's site that are potentially up gradient. Heald's Garage experienced a gasoline release from a fuel dispenser. It is the author's opinion that the Heald's Garage site poses a risk based on potential groundwater flow towards the Bixby's site. This site is undergoing continued investigation by the DEC.
- \* There are two underground tanks at the Bixby's site. These 1,000 gallon, single walled steel tanks, which were installed in 1985 are located by the office on Bentley Avenue. The southern most tank is used for retail sale of kerosene and the other tank is used for #2 fuel oil to heat the building (see



appendix). The tanks both have monitoring wells. The kerosene tank is being removed this fall since a new fuel island was recently installed with enviroflex double walled piping and draws products from the new diked, above ground the bulk storage facility.

- \* The Spill Prevention, Control and Countermeasure Plan for Bixby's is currently being rewritten to reflect the new bulk petroleum storage facility.

## 6.0 FINDINGS AND CONCLUSIONS

Malter Consulting, Inc. has performed a Phase 1 Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E-1527 of the Bixby's property located at 34 Bentley Avenue in the Town of Poultney, Vermont. The assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

The floor drain located in the garage poses an impact to surface water and is in violation of the Vermont Department of Environmental Conservation Floor Drain Procedures. This drain should be sealed.

Following the removal of the two empty tanks behind the new bulk plant, subsurface soil sampling and analysis should be accomplished to determine the extent of any oil contaminated soil.

The installation of groundwater monitoring wells with the collection and analysis of groundwater samples in the vicinity of the old bulk plant is recommended.

**APPENDIX C**

**VT DEC REGULATORY DATABASES**

## **APPENDIX C.1**

### **ACTIVE AND PULLED UST DATABASE**

Facility ID#	Hazardous Sites ID#	Facility Name	Facility Address	Facility Town name	Perm
2188		Janney Residence	3-52 Salt Ash Road	Plymouth	
2283166		Dola Davis Residence	TH 46 (Off Th 15_)	Plymouth	
2285143		Baylor Residence	Kingdom Road	Plymouth	
6723650		Plymouth Cheese Corporation	TH 4	Plymouth	
2279		Luce Residence	High Pastures Road	Pomfret	
2400		Wakeman Residence	Cloudland Road	Pomfret	
2414		The Pomfret School	Pomfret Road	Pomfret	
2349820		Blake Residence	Barber Hill Road	Pomfret	
4571327		Nichols Home	Pomfret Road	Pomfret	
4571626		Teago General Store	Barnard Stage Road	Pomfret	99
4571714		Laster Residence		Pomfret	
4571736		Mccord Residence	Town Rd 13 Caper Street	Pomfret	
4572777		Residence		Pomfret	
4573320		Herbert Private Home	Tom White Hill	Pomfret	
203		Eureka Quarry	RFD 1 Town Road 7	Poultney	
689		Poultney Service Center	York Street	Poultney	
1510	961977	Poultney Feed-N-Seed Exxon	12-14 Main Street	Poultney	00
1565		Poultney Town Garage	Furnace Street <i>x good out / AG</i>	Poultney	02E
1637	931531	Stewart's Shop #191	Maple and Main Streets	Poultney	98
1827	97	York Street Auto Repair\$	468 York Street	Poultney	02
1833		Poultney Mobil	1 East Main Street	Poultney	99
1900		Williams Machine Company	18 Beaman Street	Poultney	98
2679		Poultney High School	36 East Main Street	Poultney	
2874000	96	Heald's Garage	Main and Beaman Street	Poultney	01
2879313	911120	Green Mountain College	16 College Street	Poultney	
2879495		Own Property	Hampshire Hollow Road Town Rd 93	Poultney	
395	962126	Tornabene's Service Center	Route 7	Pownal	
1010	921190	Northeast Wood Products	Church Street	Pownal	98
1215	890311	Village Market	Route 7	Pownal	03
1757		Apartment House	Route 346	Pownal	
2102		Stewart's Shop #199	Route 7	Pownal	03
2299	931511	Green Mountain Race Track	US Route 7	Pownal	99
2383		Counihan Residence	Atwood Drive	Pownal	
2623	951927	Pownal Elementary School	Schoolhouse Road	Pownal	
6365500	870129	General Cable Company	Route 346	Pownal	
2153		Proctor High School	Park Street	Proctor	

Facility ID#	Hazardous Sites ID#	Facility Name	Facility Address	Facility Town name	Perm
4593329		Lafond's Auto	98 South Street	Proctor	98
47	98	Main Street Service Center	Main Street	Putney	02
145		Basketville Inc	Route 5	Putney	
420	97	Rod's Mobil	Rt 5 Box 31	Putney	02
1682	911126	Mountain Paul's General Store\$	Main Street	Putney	03
2081		Putney Fire Department	Main Street	Putney	99E
2082		Town of Putney Garage\$	River Road	Putney	03E
2099		Robert and Mary Jane Bibeau	Old Depot Road	Putney	
2111		Putney Meadows Apartments	Old Route 5	Putney	
2186		The Putney Inn	Depot Road	Putney	
2446	941671	Putney School Inc	Elm Lea Farm	Putney	
2542494		Currier Bldg	Old Depot Road	Putney	
3874767	941666	Landmark College Campus	River Road	Putney	
3875521	96	Putney Central Elementary School	Westminster West Road	Putney	
3875817		Hill & Dale Farms	R2 Box 1260	Putney	
3875852		Harlow's Sugar House	Rt 5 Rd 1 Box 395	Putney	
136		East Randolph Country Store\$	Route 14	Randolph	01
183	97	Randolph Town Garage	Route 66 and Rand Road	Randolph	02E
262		VAOT Randolph Garage	Town Highway 46	Randolph	01
409		Waterbury Companies Inc	South Pleasant Street Extension	Randolph	
462	880215	Champlain Farms	16 North Main Street	Randolph	01
1018		Randolph Village School	Main Street	Randolph	
1095		01-600 Rinker Mobil Station	1-89 and Randolph Center Road	Randolph	99
1128	951897	Vermont Technical College	Route 66 Randolph Center	Randolph	
1497		Vermont Eastern Star Home Inc	16 Maple Street	Randolph	
1881		Gifford Memorial Hospital	44 South Main Street	Randolph	99
1920	951867	Randolph Garage	Hedding Drive	Randolph	02E
2236		New Idea Realty Co	30 South Main Street	Randolph	
2260		Randolph House	65 Main Street	Randolph	
2287		South Pleasant Street Apartments	South Pleasant Street	Randolph	
2290		Vermont Sports Apparel	24 Pleasant Street	Randolph	
2580		Randolph Treatment Plant	Hedding Drive	Randolph	02E
4792440	961989	M & M Redemption Center	Depot Square	Randolph	00
7283397		Union High School District 2	Forest Street	Randolph	
7285144		Home	1 Hargrace Drive	Randolph	
7285431	982380	former Stagecoach Depot	14 South Main Street	Randolph	

Fac. ID#	Sites ID#	Facility Name	Facility Address	Town	Year Pulled	Tanks Pulled	Code
9990471	931551	Pittsfield Volunteer Fire Dept.	Route 100	Pittsfield	1993	1	C
986		Omya, Inc.	Whipple Hollow Road, Florence	Pittsford	1990	1	A
1884	900533	Omya, Inc.	Truck Route, Florence	Pittsford	1990	2	C
4832211	911047	Allied Power & Light Company	Elm Street	Pittsford	1991	2	C
4836122		Guy E. Wilson, Inc.	Route 7	Pittsford	1994	1	A
4836557	931491	Twin Town Rendering Co., Inc.	Truck Route To Florence	Pittsford	1993	1	C
9990177		Kamuda's Super Market	Main Street, Route 7	Pittsford	1985	2	A
9990351		New England Telephone	Route 7	Pittsford	1992	1	A
9990446	931490	Otter Valley Garage, Inc.	Main Street, Route 7	Pittsford	1991/1993	8	A
9991049	98	Sugarwood Ridge Cabin	Sugarwood Ridge	Pittsford	1998	1	C
9991063	98	Keith's Salvage	Plains Road	Pittsford	1998	2	C
9999690	951784	Caverly Early Childhood Education	Plains Road	Pittsford	1995	1	C
1084		Goddard College (Greatwood Campus)		Plainfield	1995	1	A
1151	900552	Plainfield Auto Parts	Route 2	Plainfield	1990/1993	1/2	C
1110951		Pike Industries, Inc. (Cooley Asphal	Plainfield Fravel Pit Off Rt 2	Plainfield	1988	6	A
4548436		Dix's Home Site	Hollister Hill	Plainfield	1987	1	D
9991046	98	Plainfield Wastewater Treatment Plan		Plainfield	1998	1	C
9999843		Manwell Store	Box 125	Plainfield	1996	1	A
1908	951916	Sailer Construction, Inc.	Route 100A	Plymouth	1988/1995	1/2	C
6723535		Town of Plymouth	Town Highway 50	Plymouth	1995	2	B
9990437		Scott Residence	Rockefeller Road	Plymouth	1993	1	B
9999609		Joy Donnelly Residence	Town Highway 15	Plymouth	1994	2	B
9999821		Roundtop Ski Area	Roundtop Road	Plymouth	1996	2	A
750		Suicide Six Ski Area		Pomfret	96	1	B
845	890364	Pomfret Town Garage		Pomfret	1989/1991	1/1	C
1650	97	North Pomfret Store	Pomfret Road	Pomfret	1997	3	C
1000845	890845	Pomfret Town Garage	Town Road 11	Pomfret	1991	1	C
2	98	Bixby's	34 Bentley Avenue	Poultney	1998	1	C
647		Morse Block Inc. 7 1/2 mi. E	Route 140	Poultney	1989/1990	2/1	B
1016		Tatko Bros. Quarry #2 > 1/2 mi. W	York Street Extension	Poultney	1991	3	B
1017		Tatko Bros. Quarry #4 > 1/2 mi. W	Evergreen Road	Poultney	1991	2	A
9990295	770017	Staco/Chase	Route 30 Beaman Road	Poultney	1992	2	C
9990355	911038	Poultney Auto Supply	7S Main Street	Poultney	1992	1	C
9990468		Jordan Oil 1/2 mi. S of Poultney	Route 30	Poultney	1993	1	A
9999831	96	Poultney Post Office	66 Main Street	Poultney	1996	1	C
1110935		New England Telephone Pownal	Main Street	Pownal	1988	1	D
8237740	98	Green Mountain Grocers	Route 7	Pownal	1998	2	C

## PULLED FACILITIES

Page 37

ID#	Sites ID#	Facility Name	Facility Address	Town	Year Pulled	Tanks Pulled	Code
831	911137	Lertola's, Inc.	99 South Street	Proctor	1992	3	C
0831	911137	Lertola's, Inc.	99 South Street	Proctor	1991	1	C
23311		Vermont Marble Company	61 Main Street	Proctor	1997	2	A
23349		Proctor Coal Co.	41 School Street	Proctor	1989	1	D
23687		Winger's Aka Welch's Country Store	48 East Street	Proctor	1987	2	B
20383	93	Vacant Property	48 East Street	Proctor	1993	1	A
29652		I & T Tractor & Equipment	1 Deere Road	Proctor	1994	3	A
29711		St Dominic's Church	45 South Street	Proctor	1995	1	A
1476		Derrig Excavating	Houghton Brook Road	Putney	1995	2	A
20180		Arden Organics	River Road	Putney	1988	1	A
20181		Basketville	River Road Farm	Putney	1990	1	A
20182		Bolster's Residence		Putney	1991	1	D
20183		Linden Gardens, Inc.	18 Linden Street	Putney	1989	1	A
20184		Nh/Vt Veterinary Clinic		Putney	1990	1	A
90366		Ray Fortier's Auto Body	River Road	Putney	1993	1	A
90420		Residence	Westminster West Road	Putney	1993	2	A
148	911028	Ethan Allen Inc Plant 2	Hull Street	Randolph	96/98	2/2	A
383		Miller Ready-Mix Concrete, Inc.	35 Central Street	Randolph	1992	1	A
566	98	Washburn's Laundromat	North Main Street	Randolph	1998	6	C
696		Randolph Service Center	Route 12	Randolph	1989	3	B
867		W B Rogers Inc. - Garage	Weston St.	Randolph	1994	2	A
930		Net Randolph C.O.	Pleasant Street	Randolph	1993	1	A
1359	97	South End Auto	Route 12	Randolph	86/97	3/3	C
1755		Vermont Castings, Inc.	Prince Street	Randolph	1988/1994	1/1	A
1842		Vermont's Hidden Spring	11 Hedding Drive	Randolph	1992	3	A
2399		Shepler Residence	Town Road #64 East Randolph	Randolph	1997	1	A
101359		South End auto	South Main Street Route 12	Randolph	89	1	
110557	880243	Floyd's Store	Route 66	Randolph	1988	4	C
283151	941715	Vermont Castings Inc. Foundry Div.	Beanville Road	Randolph	1994	1	C
283315	96	Ethan Allen Plant #1 Grading Shed	Salisbury Street	Randolph	1996	2	C
285620	96	Tewksbury Store	2 Weston Street	Randolph	1996	2	C
285657		Angell's Residence	19 Maple Street	Randolph	1988	1	D
290185		Jean Peabody	E. Randolph Intersection Rt 14 & 66	Randolph	1989	1	A
290307		Raymond Estate	Randolph Avenue and Pleasant Street	Randolph	1992	4	B
290320		Rock-It, Inc. (Bradford Millworks)	Route 14, North Randolph	Randolph	1992	1	A
290404		Quick Pull	South Pleasant Street	Randolph	1993	2	B
291037		Cliffords of Vermont	South Pleasant Street Extension	Randolph	1998	1	A



# MALTER CONSULTING, INC.

P.O. Box 176, Waterbury, VT 05676

JUN 12 12 42 PM '98  
(802)244-7373 FAX(802)244-7570

June 10, 1998

Susan Thayer  
Vermont Department of Environmental Conservation  
Waste Management Division  
103 South Main Street  
Waterbury, VT 05671-0404

Re: Removal of one 1,000 gallon underground storage tank (UST) at Bixby's, Poultney, Vermont.

Dear Susan;

This letter report on the removal of a 1,000 gallon UST at Bixby's includes my observations, conclusions and recommendations. I have included the UST Permanent Closure Form and some photographs of the pull.

On May 26, 1998, I inspected the removal of one 1,000 gallon steel single walled kerosene UST and related piping situated just west of the office portion of the Bixby's Petroleum Bulk Plant, which is located at 34 Bentley Avenue, Poultney, Vermont (See photo 1). An adjacent 1,000 gallon #2 fuel oil UST used to supply fuel to heat the building remained in service at the site. The facility is located in a mixed residential and commercial area on land bordered on the north by Bentley Avenue and on the east by Grove Street (Route 31). To the west the site is bordered by an abandoned railroad right of way and to the south the site is bordered by the Poultney River. Bixby's is served by the Village of Poultney's municipal water and sanitary sewer. The public water supply wells are located approximately .5 mile west of the site and the nearest private water supply well is over 1,000 feet from the site. The topography of the ~16.3 acre site is fairly level on Bentley Avenue and slopes down about eight feet to the south behind the buildings on the site. The remainder of the property is fairly level, open fields with an intermittent stream that flows from the northeast to the south through the site. The Poultney River flows west along the southern boundary of the site approximately 1,100 feet south of Bentley Avenue. The area in the vicinity of the UST is underlain by coarse gravel fill from 0 to 5 feet; with fine gravel from 5 to 7 feet and fine sand over till from 7 to 8 feet. The sand was damp at 7 feet. The water table was not intercepted during the excavation activity. Crushed stone was located along the building foundation located at the end of the UST excavation. The Mount Hamilton Formation which is a variably colored slate underlies the site. A bedrock high was observed at ~ 5 feet below ground surface at the base of a portion of excavation B located under the site of the dispenser island (See diagram). This was the only place that bedrock was observed during the excavations. Two monitoring wells are located in the vicinity of the dispenser island and USTs. The monitoring well by the pump island had a broken well cover and showed the water table at

8.77 feet below ground surface. This may be an artificially high elevation due to surface infiltration. The groundwater elevation at the monitoring well west of the kerosene UST was at 9.32 feet below ground surface. Groundwater flow for the majority of the site is likely towards the intermittent stream ~200 feet to the south and the Poultney River ~1,100 feet to the south of Bentley Avenue.

The UST and piping were installed in 1985. The UST was used for the commercial sale of kerosene. This UST was taken out of service in 1997. At that time the UST had been emptied. The dispenser had been removed from the fueling area. The UST fill was directly above the tank. The vent pipes for the UST and an adjacent heating oil UST were located east of the kerosene UST adjacent to the building (See photo 2). The heating oil UST was located north of the kerosene UST. A stick measurement was made of the kerosene UST and 2 inches of product was measured. This 14 gallons of kerosene was pumped out by Owner Services Inc. personnel for reuse. The underground piping associated with the vent and pump were inspected and were in fair condition. The UST was located approximately 5 feet west of the foundation footings for the building and the UST was aligned east-west. The UST facility ID # was 2.

On May 26, 1998 the top of the UST, which was located ~three feet below grade and the related piping were exposed using a backhoe operated by R.F. Hall and Son. In conjunction with the excavation, the piping was removed by personnel with Owner Services, Inc. and Rick Hall. (See photo 3). There was about a quart of kerosene left in the line between the UST and pump island. This product was collected for reuse.

During the initial excavation(1) (See diagram) I visually inspected the soils and collected samples in Zip Loc bags and monitored them using a 10.6 eV Photovac photoionization detector (PID) which was calibrated on site prior to beginning the investigation. Levels of volatile organic hydrocarbons ranged from non detect to ~72 parts per million (ppm) from the ground surface to one foot below the vent pipe for the kerosene UST. The readings from one foot to 8 feet below ground surface in the vicinity of the vent pipe were non detectable. The pipeline excavation (A) from the UST to the pump island was non detect from the ground surface to 3 feet below ground surface. I also excavated one part of the pipeline trench to a depth of 5 feet and this also was non detect for volatile organic compounds. The soil surrounding the 1,000 gallon kerosene UST was monitored during excavation and the readings were non detectable around the top 3 feet, including around the fill pipe and down to a depth of 8 feet below ground surface from the south side and west side of the excavation. Samples were taken at three locations under the UST at 8 feet and the results were also non detectable. The area around the dispenser pump island was monitored following the removal of the concrete island. Levels of 40 to 300 parts per million (ppm) were present in the top 2 feet of this excavation (B) (See photo 4 and diagram). The pump island excavation continued to a depth of 5 feet where a weathered slate bedrock was intercepted at the east end of the excavation. The soil samples ranged to 30 ppm from 2 to 3 feet; 15 ppm from 3 to 4 feet and non detect to 5 ppm from 4 to 5 feet in the remainder of this excavation. I had 12 cubic yards of contaminated gravel removed from this excavation and stockpiled in a polyencapsulated location on a concrete slab on Bixby's property. A table showing the PID readings is included with this report.

The piping and the UST were stored at the Bixby's facility. The inspection of the UST after it was removed from the ground showed that the UST was in good condition. No holes or significant rust was observed on the UST.

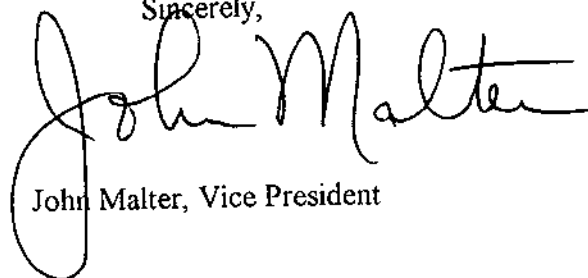
There was no water present in the UST footprint. The sand over till between 7 and 8 feet below ground surface was damp. The monitoring wells had water at 8.77 feet below grade at the north monitoring well and 9.32 feet below ground surface at the south monitoring well. The Photoionization detector monitored both wells and had non detectable readings. A Solinst Model 121 Interface probe was used in both wells and no free product was detected in either well.

In conclusion, the UST excavation did not exhibit any detectable levels of petroleum contamination. The area around the vent pipe showed some contamination as a result of a previous overfill at the vent area. The kerosene pump island showed some contamination and 12 cubic yards of gravel were excavated from this site and polyencapsulated on site. The two monitoring wells located in the vicinity of the pump island and the kerosene UST did not have any detectable levels of volatile organic compounds present when monitored with the photoionization detector and there was no free product as measured by an interface probe. The excavation for the pipeline between the UST and the pump island did not show any detectable levels of volatile organic compounds from ground surface to 3 feet below grade. An excavation to 5 feet below ground surface was also done in one part of the pipeline trench and this also showed non detect levels for volatile organic compounds. Groundwater flow is believed to be towards the Poultney River to the south. There are no sensitive receptors in the immediate area of the Bixby's Petroleum facility.

Other than monitoring the soil pile on a semi annual basis I recommend that no further investigation of this site is necessary.

Please give me a call if you have any questions concerning this report.

Sincerely,

A handwritten signature in black ink, appearing to read "John Malter". The signature is fluid and cursive, with a large loop at the beginning and a long horizontal stroke at the end.

John Malter, Vice President



Photo 1: Bixby's, Poultney. Showing kerosene underground storage tank and pipeline excavation.



Photo 2: Bixby's, Poultney. Showing kerosene underground storage tank excavation with fill pipe and vent pipes for the kerosene and heating oil tanks.



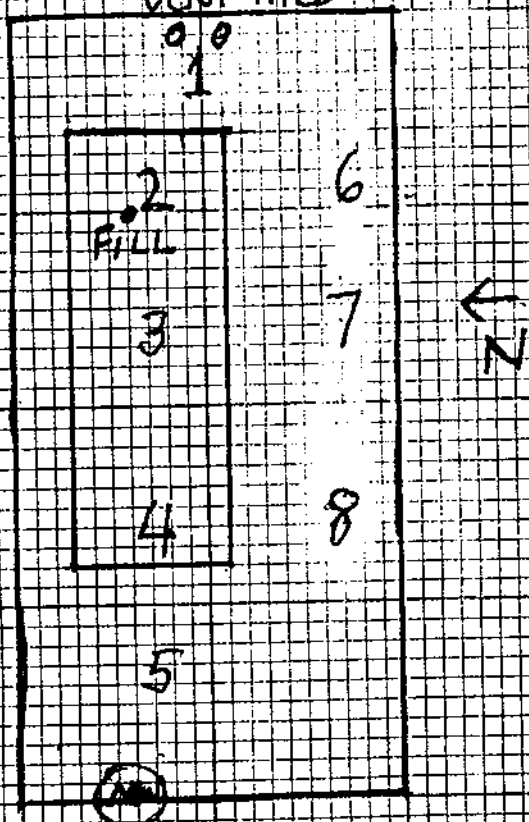
Photo 3: Bixby's, Poultney. Showing excavation of pipeline from kerosene tank toward closed dispenser island. Bentley Avenue in background.



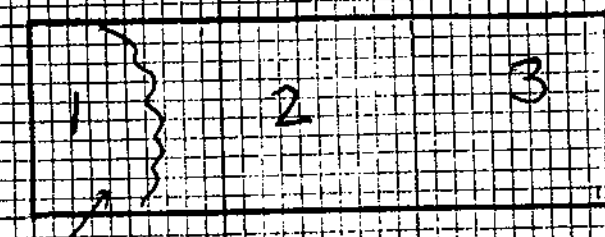
Photo 4: Bixby's, Poultney. Showing excavation beneath dispenser island.

# PIPELINE EXCAVATION A

## EXCAVATION 1 VENT PIPES



## DISPENSER EXCAVATION B



BEDROCK

1  
X

2  
X

3  
X

4  
X

N  
↓

**BIXBY'S PETROLEUM  
MONITORING POINTS AND DEPTH  
EXCAVATION 1-(KEROSENE UST)**

Monitor Points	0-1'	1-2'	2-3'	3-4'	4-5'	5-6'	6-7'	7-8'	8-9'
1	0-72	ND	ND	ND	ND	ND	ND	ND	ND
2	ND	ND	ND	NR	NR	NR	NR	NR	ND
3	ND	ND	ND	NR	NR	NR	NR	NR	ND
4	ND	ND	ND	NR	NR	NR	NR	NR	ND
5	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	ND	ND	ND	ND	ND	ND	ND	ND	ND

PID READINGS ARE IN PARTS PER MILLION

ND-Non detect on the Photo ionization detector  
NR-no reading due to location of UST

BIXBY'S PETROLEUM MONITORING POINTS AND DEPTH EXCAVATION A- KEROSENE PIPELINE					
Monitor Points	0-1'	1-2'	2-3'	3-4'	4-5'
1	ND	ND	ND	NR	NR
2	ND	ND	ND	NR	NR
3	ND	ND	ND	ND	ND
4	ND	ND	ND	NR	NR

PID READINGS ARE IN PARTS PER MILLION

ND-Non detect on the Photo ionization detector

NR-no reading due to location of UST at Point 1. Point 2 and Point 4 excavated to .5 feet below pipeline.

BIXBY'S PETROLEUM MONITORING POINTS AND DEPTH EXCAVATION B- DISPENSER ISLAND					
Monitor Points	0-1'	1-2'	2-3'	3-4'	4-5'
1	ND	ND	ND	ND	ND
2	40	300	30	15	5
3	25	140	20	8	ND

PID READINGS ARE IN PARTS PER MILLION

ND-Non detect on the Photo ionization detector



VERMONT NOTIFICATION FOR UNDERGROUND STORAGE TANKS

- READ INSTRUCTION PAGE CAREFULLY BEFORE COMPLETING THIS FORM -

PLEASE TYPE OR PRINT IN INK ALL ITEMS EXCEPT "SIGNATURE" IN SECTION VI ON PAGE 2.  
SEPARATE NOTIFICATION MUST BE FILED FOR TANKS OWNED AT A DIFFERENT LOCATION.  
FOR ADDITIONAL INFORMATION, CALL THE VERMONT UNDERGROUND STORAGE TANK PROGRAM AT (802) 828-3395.

I. OWNERSHIP OF TANKS

NAME (CORPORATION, INDIVIDUAL, PUBLIC AGENCY OR OTHER ENTITY)  
Owner Services Inc d/b/a  
STREET ADDRESS  
41 School St  
TOWN OR CITY  
Proctor COUNTY  
Rutland  
STATE  
Vt ZIP CODE  
05765 AREA CODE  
(802) PHONE NUMBER  
1459-3349

II. CONTACT PERSON (PERSON RESPONSIBLE FOR DAY-TO-DAY OPERATION OF TANKS)

NAME (IF SAME AS IN SECTION I, CHECK BOX HERE ☐)  
Chris Keyser  
JOB TITLE  
Pres AREA CODE  
(SAME) PHONE NUMBER  
(SAME)  
MAILING ADDRESS (IF DIFFERENT FROM SECTION I)  
STREET ADDRESS  
TOWN OR CITY  
SAME  
COUNTY  
STATE  
ZIP CODE

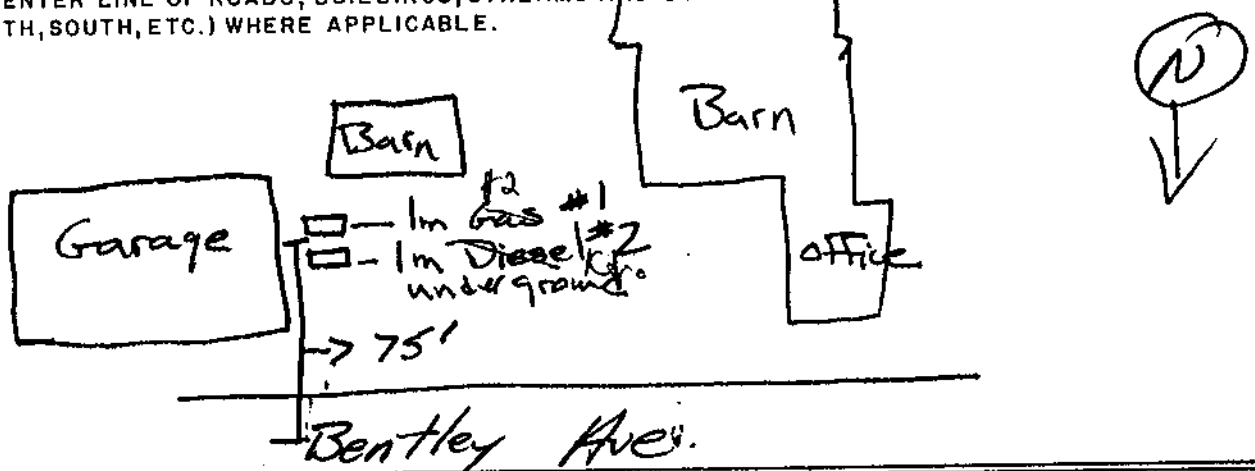
III. SITE LEAK HISTORY (COMPLETE THIS SECTION ONLY IF APPLICABLE)

YEAR OF LEAK ESTIMATE OF QUANTITY  
LEAKED IN GALLONS  
SUBSTANCE LEAKED  
SOURCE OF LEAK (CHECK ALL THAT APPLY)  
☐ TANK ☐ PUMP ☐ OVERFILL  
☐ PIPING ☐ TRANSFER ☐ OTHER  
CONTAMINATION (CHECK ALL THAT APPLY)  
SOIL YES ☐ NO ☐ DON'T KNOW ☐  
GROUNDWATER YES ☐ NO ☐ DON'T KNOW ☐  
SURFACE WATER YES ☐ NO ☐ DON'T KNOW ☐  
CORRECTIVE ACTION (CHECK ALL THAT APPLY)  
☐ PRODUCT RECOVERY WELLS INSTALLED  
☐ SURFACE WATER CONTAINMENT USED  
☐ CONTAMINATED SOIL EXCAVATED  
☐ TANK REPLACED  
☐ PIPING REPLACED  
☐ NO ACTION TAKEN  
☐ OTHER (SPECIFY)

IV. LOCATION OF TANKS

FACILITY NAME OR OTHER SITE IDENTIFIER, AS APPLICABLE  
Bixby's  
STREET ADDRESS, STATE ROAD, R.R. #, AS APPLICABLE  
34 Bentley Ave  
TOWN OR CITY  
Poultney COUNTY  
Rutland  
STATE  
Vt ZIP CODE  
05764 NUMBER OF TANKS  
AT THIS LOCATION  
2  
NAME OF LANDOWNER  
Owner Services Inc  
TYPE OF FACILITY (CHECK ONE)  
☐ INSTITUTIONAL ☐ RETAIL/CONVENIENCE STORE  
☒ ~~INDUSTRIAL~~ ☒ INDUSTRIAL/COMMERCIAL  
☐ STATE ☐ RESIDENTIAL  
☐ TOWN ☐ SERVICE STATION  
☐ FARM  
☐ FEDERAL (GIVE FACILITY I.D. NO.)  
☐ OTHER (SPECIFY) INDUSTRIAL/COMMERCIAL

USE THIS SPACE TO SKETCH AND/OR VERBALLY DESCRIBE FACILITY LOCATION. INCLUDE ESTIMATED DISTANCES TO CENTER LINE OF ROADS, BUILDINGS, STREAMS AND OTHER LANDMARKS. USE DIRECTIONAL DESCRIPTORS (NORTH, SOUTH, ETC.) WHERE APPLICABLE.



LOCAL USE ONLY

FACILITY I.D. NO. 0000002 WAS  
RECORDED ON February 18, 1986 IN  
(DATE)  
BOOK NO. 74, PAGE 171  
OF THE POULTNEY LAND RECORDS.  
(TOWN)

SIGNATURE OF TOWN OR CITY OFFICER

STATE USE ONLY

☒ FIRST ☐ AMENDED  
FACILITY IDENTIFICATION NUMBER  
0000002  
DATE RECEIVED  
11-21-85 APPROVED  
11/22/85 ☐  
RECEIVED BY  
Susan Alexander

tu. \$3.00 Paid

# UNDERGROUND STORAGE TANK PERMANENT CLOSURE FORM

**Agency Use Only**  
 Facility ID# 2  
 Date of scheduled activity: 5/21/98  
 Facility Town: POULTNEY  
 DEC Official: ST Eval. by: \_\_\_\_\_

Vermont Agency of Natural Resources  
 Dept. of Environmental Conservation  
 Waste Management Division  
 103 South Main Street, West Building  
 Waterbury, Vermont 05671-0404  
 Telephone: (802) 241-3888

Site assessment company: \_\_\_\_\_  
 Site assessor: \_\_\_\_\_  
 Phone Number of company (or person): \_\_\_\_\_  
 Date of UST closure: \_\_\_\_\_  
 Date of site assessment: \_\_\_\_\_

## Section A. Facility Information:

Name of facility: BIKBY'S Number of employees: 4  
 Street address of facility: 34 BENTLEY AVENUE, POULTNEY, VT 05764  
 Owner of UST(s) to be closed: CHRIS KEYSER Contact (if different than owner): AL CURTIS  
 Mailing address of owner: 41 SCHOOL STREET, PROCTOR  
 Telephone number of owner: 459-3349 Contact telephone #: \_\_\_\_\_

## Section B. UST Closure Information: (please check one)

Reason for initiating UST closure: ☐ Suspected Leak ☐ Liability ☐ Replacement ☒ Abandoned  
 Which Portion of UST is to be closed: ☐ Tanks ☐ Piping ☒ Tanks & Piping

USTs (piping is considered a part of UST system) undergoing permanent closure. Include condition of USTs

UST #	Product	Size (gallons)	Tank age	Tank Condition	Piping age	Piping condition
#1	Kero	1,000	213 years	good	~13 years	fair

Which tanks, if any, will be closed in-place: USTs# \_\_\_\_\_ Authorized by: \_\_\_\_\_ Date: 5/26/98  
 Disposal/destruction of removed UST(s): Location ON SITE Method \_\_\_\_\_ Date: 5/26/98  
 Amount (gal.) and type of waste generated from USTs: 14 GALLONS  
 (tank contents are hazardous wastes unless recovered as usable product)  
 Tank cleaning company (must be trained in confined space entry) \_\_\_\_\_  
 Certified hazardous waste hauler: NA Generator ID number: NA

## Section C. Initial site characterization:

Work in this section must be completed by a professional environmental consultant or hydrogeologist with experience in environmental sampling for the presence of hazardous materials. A full report from the consultant must accompany this form.

### PID information:

Make: PhotoVac Model: 2020 Calibration information (date, time, gas): 5/26/98 7:57 A.M.  
Isobutylene

### Excavation information: (some tank pulls require more than one excavation)

Tank(s) # and Excavation (A,B,C,etc)	Depth (ft)	Excavation size(ft <sup>2</sup> )	Peak PID reading	Depth of Peak (ft)	Avg PID reading	Bedrock Depth (ft)	Groundwater encountered? (y/n) and at depth (ft)	Soil type
#1	8'	200ft <sup>2</sup>	72	<1'	ND		N	COARSE GRAVEL
A	3'	240ft <sup>2</sup>	ND	ND	ND		N	COARSE GRAVEL
B	5'	75ft <sup>2</sup>	300	2'	30	~5'	N	COARSE GRAVEL

### Locate all readings and samples on site diagram

Number of soil samples collected for laboratory analysis? \_\_\_\_\_ results due date \_\_\_\_\_  
 Have any soils been polyencapsulated on site? Yes ☒ (#yds<sup>3</sup>) 12 PID range above zero 10-300 No \_\_\_\_\_  
 Have any soils been transported off site? Yes \_\_\_\_\_ list amount (yds<sup>3</sup>): \_\_\_\_\_ No ☒  
 Location transported to: \_\_\_\_\_ DEC official who approved \_\_\_\_\_  
 Amount of soils backfilled(yds<sup>3</sup>): \_\_\_\_\_ PID range above zero \_\_\_\_\_  
 Have limits of contamination been defined? Yes ☒ No \_\_\_\_\_  
 Is there any other known contamination on-site? Yes \_\_\_\_\_ No ☒ Comments: \_\_\_\_\_

Free Phase product encountered? Yes \_\_\_\_\_ thickness \_\_\_\_\_ No ☒  
 Groundwater encountered? Yes ☒ depth(ft) \_\_\_\_\_ No \_\_\_\_\_  
 Are there existing monitoring wells on-site? Yes ☒ how many: 2 (locate on site diagram) No \_\_\_\_\_  
 Have new monitoring wells been installed? Yes \_\_\_\_\_ how many: \_\_\_\_\_ (locate on site diagram) No ☒  
 Have samples been taken from any monitoring wells for lab analysis? Yes \_\_\_\_\_ results due date \_\_\_\_\_ No ☒

Is there a water supply well on site? Yes \_\_\_\_\_ (check type: shallow \_\_\_\_\_ rock \_\_\_\_\_ spring \_\_\_\_\_) No ☒  
 How many public water supply wells are located within a 0.5 mile radius? 1 min. distance (ft.): 2500 FEET  
 How many private water supply wells located within a 0.5 mile radius? 10 min distance (ft.): 1000 FEET

What receptors have been impacted? ☒ soil \_\_\_\_\_ indoor air \_\_\_\_\_ groundwater \_\_\_\_\_ surface water \_\_\_\_\_ water supply \_\_\_\_\_  
minor.

Facility ID# 2

**Section D: Tanks/Piping Remaining/installed**

Regardless of size, include USTs at site as to \*status, e.g. "abandoned", "in use", or "to be installed". (Most installations require permits and advance notice to this office.)

UST#	Product	Size(gallons)	Tank age	*Tank status	Piping age	*Piping Status
#2	#2 F.O.	1,000	~13 years	IN USE	~13 years	In USE

There are no other tanks at this site.

**Section E. Statements of UST closure compliance:**

(must have both signatures or site assessment not complete)

As the party responsible for compliance with the Vermont UST Regulations and related statutes at this facility, I hereby certify that the all of the information provided on this form is true and correct to the best of my knowledge.

Lance Colley  
Signature of UST owner or owner's authorized representative

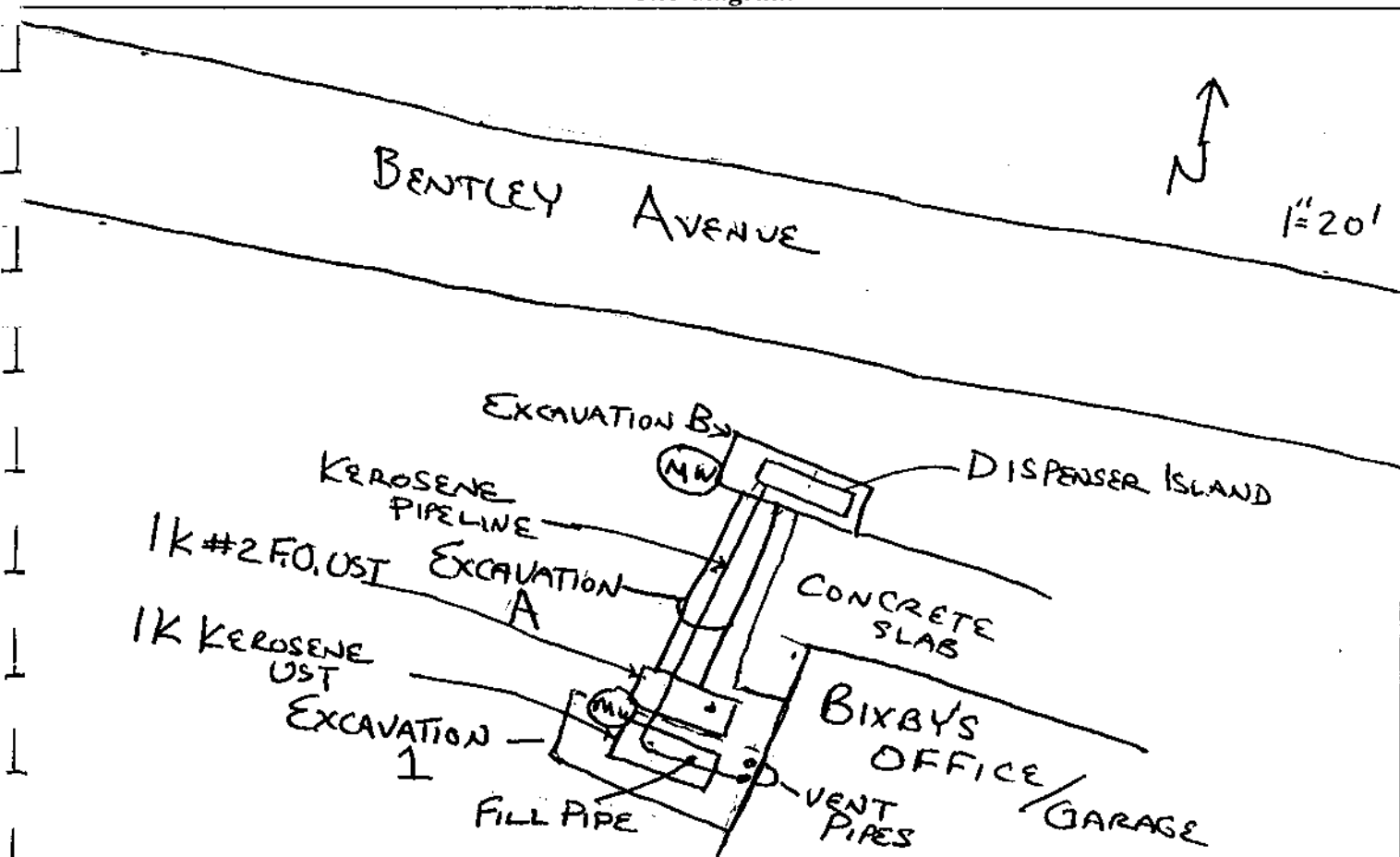
Date: 5/26/98

As the environmental consultant on site, I hereby certify that the site assessment requirements were performed in accordance with DEC policy and regulations, and that information which I have provided on this form is true and correct to the best of my knowledge.

John Malter  
Signature of Environmental Consultant

Date: 5/26/98

Site diagram



Return form along with complete narrative report and photographs to the Department of Environmental Conservation(DEC), Underground Storage Tank Program within 72 hours of closure.

Closure Form may only be issued for the facility and the date indicated in the upper left hand corner of page 1. Changes in the scheduled closure date should be phoned in at least 48 hours in advance. Both the yellow and white copies of this form must be returned to the address on the top of page 1 of this form; the pink copy should be retained by the UST owner. A written report from an environmental consultant covering all aspects of closure and site assessment, complete with photographs and any other relevant data, must accompany this form. All procedures must be conducted by qualified personnel, to include training required by 29 CFR 1910.120. Documentation of all methods and materials used must be adequate. All work must be performed in compliance with DEC policy "UST Closure and Site Assessment Requirements" as well as all applicable statutes, regulations, and additional policies. The DEC may reject inadequate closure forms and reports.

**APPENDIX C.2**

**VT DEC CLOSED AND ACTIVE**

## Active Sites

Poultney/Proctor

Site Number	Site Name	Site Town	Staff
972313	North Pomfret Store	Pomfret	Unassigned
770017	Staco	Poultney	Michael Smith
770018	Old Poultney Dump <i>7 1/2 miles</i>	Poultney	Unassigned
770065	Williams Machine Company <i>7 1/2 miles</i>	Poultney	Bruce Linton
931531	Main St Stewarts Shop	Poultney	Linda Elliott
941557	Poultney Mobil	Poultney	Matt Moran
961977	Poultney Bp/exxon	Poultney	John Schmeltzer
962120	Healds Garage <i>in 1000' east x gradient</i>	Poultney	Unassigned
972317	York Street Auto <i>in 2000' north west</i>	Poultney	Unassigned
982429	Bixbys	Poultney	Unassigned
770066	*Pownal Tannery	Pownal	Brian Woods
870129	General Cable	Pownal	Richard Spiese
890311	Village Market	Pownal	Linda Elliott
921190	Northeast Wood Products	Pownal	Unassigned
962126	Tornabenes Auto	Pownal	Unassigned
911137	Lertolas Toyota	Proctor	Mike Young
931373	Proctor High School	Proctor	Bruce Linton
770068	Blood Farm Dump	Putney	Bruce Linton
900589	Shumlen Residence	Putney	Unassigned
911126	Mountain Pauls General Store	Putney	Lynda Provencher
921296	Putney Fire Dept	Putney	Unassigned
941605	Putney Paper Sludge Lagoons	Putney	Bruce Linton
941606	Putney Paper Sludge Landfill	Putney	Bruce Linton
941666	Landmark College - Davis Hall	Putney	John Schmeltzer
941671	The Putney School - Keep House	Putney	John Schmeltzer
951851	Genesis Church	Putney	Bob Haslam
962029	Putney Central Elementary School	Putney	John Schmeltzer
972309	Rods Mobil - Putney	Putney	Unassigned
982439	Main Street Service Center	Putney	Unassigned
770019	Wright Property	Randolph	Stan Cornielle
770069	White River Valley Hardwoods	Randolph	Mike Young
880215	Wesco	Randolph	Matt Moran
911028	Ethan Allen	Randolph	Don Robisky

*closed sites*

Site Number:	SiteName	SiteAddress	SiteTown	Project Status
870151	C V Oil		Pittsfield	Site Closed
931551	Pittsfield Fire Dept	Route 100	Pittsfield	No Gw Or Soil Contamination
972154	Demarsts Country Store	Route 100	Pittsfield	Site Investigation Completed. Site Closed.
890459	Gidding Equipment Co		Pittsfield	Site Closed
900533	Omya	10 Florence Rd.	Pittsford	Ust Contamination. Stockpiled Soils.
911047	CVPS-Pittsford	Elm St.	Pittsford	Low/closed
921323	New England Telephone	Route 7	Pittsford	Site Assess Completed
770102	Vermont Art Studio	Po Box 25	Pittsford	Pa Completed 11/89, Sampling Complete. Guidelines Met
931375	Plainfield General Store	Rt 2	Plainfield	Site Assess Completed
770064	Fowler Septic Disposal Area	Brook Road	Plainfield	Closed
900552	Plainfield Auto Parts	Rt 2, Box 190	Plainfield	Additional Invest Complete. No Off Site Migration.
870008	Fowler		Plainfield	Site Closed
951916	Sailor Construction	Route 100 A	Plymouth	Soils disposed of at Waste U S A Landfill.
870114	Coolidge House		Plymouth	Site Closed
911139	Suicide Six	Stage Rd	Pomfret	Low/closed
890364	Town Of Pomfret		Pomfret	Site Closed
911140	Debby Enterprises, inc	28 Fs Church St	Poultney	Site has been SMAC'ed
870014	Green Mountain College		Poultney	Site Closed
911120	Green Mtn College	College St	Poultney	Awaiting Soil Status
962038	Poultney Post Office	66 Main St	Poultney	Invest Complete. Site Closed

Site Number:	SiteName	SiteAddress	SiteTown	Project Status
911038	Poultney Auto Supply	Main St.	Poultney	No Groundwater Ompact. Site Closed
911050	CVPS-Poultney	York St.	Poultney	1st Field Investigation Complete. Sms Requests Addl. Work 8/15/91.
770192	Morse Gravel Pit	Route 7	Pownal	Dec Completed Pa 10/91, epa Rec Completion Of Si For 96
870112	Village Garage		Pownal	Site Closed
951927	Pownal Elementary School	School St, Route 7	Pownal	Limited Soil Contam, Site Closed
770155	Ray's Repair		Pownal	Waste Oil Soils Cleanup, Site Closed
931511	Green Mountain Race Track	Route 7	Pownal	Ust Release Invest Complete, Well Not Impacted
982403	Green Mountain Grocers	Route 7	Pownal	Groundwater enforcement standards met on entire site. Site closed.
931370	Former Welch Property	48 East St	Proctor	Invest Complete, Site Closed
941620	O M Y A / Vt Marble Power	Main St	Proctor	Surface Spills Cleaned Up, Limited Contamination Remains
770067	Sutherland Falls Quarry Dump	Main St	Proctor	Site is abandoned quarry used for disposal of marble scrap, metal and other debris.
870115	Proctor Coal Co		Proctor	Site Closed
921346	Landmark College	River Road	Putney	Site Closed
951764	Bass Residence	Christian Square	Putney	Site Closed.
972249	Randolph Center Garage	Route 66 And Rand Rd	Randolph	Soil Pile Incorporated Into Asphalt Mix For Town
951897	Vermont Technical Group	Route 66	Randolph	Site Invest And Monitoring Complete, Site Closed
880208	Rinkers		Randolph	Site Closed
880243	Floyds Store	Rt 66,	Randolph	Monitoring Completed. Site Closed.

Site Number:	Site Name	Site Address	Site Town	Project Status
770063	Proctor Dump	Deere Road	Pittsford	Dec Pa Completed 10/87
880197	Logans Sunoco	Rt 7	Pittsford	Annual Monitoring, Next Round 9/98. Underground storage tank removed. Contamination found. Investigation needed.
890379	Dick's Mobil	Rt 7	Pittsford	Initial gasoline UST investigation completed; Further work to be requested for Spring '99.
931392	Keiths Trading Post	Main St, Rt 7, Box 65	Pittsford	Ust Removed, Soils Stockpiled, Gw Assess To Follow
931490	Otter Valley Garage	Route 7	Pittsford	Need Plan For Soil Disposal
931491	Gurshick Brothers Realty	Truck Rt To Florence	Pittsford	Determine Degree And Extent Of Contamination
941707	Pittsford Town Garage	Pleasant St	Pittsford	Determine Degree And Extent Of Contamination
951784	Caverly Early Childhood Educ. Building	Plains Rd	Pittsford	Technical Services Section To Screen And Hand-auger Soil Samples, Work Overdue, Requesting Completion By 7/98
982396	Sugarwood Ridge	Route 7	Pittsford	Underground Storage Tank Removed. Contamination Found. Investigation Needed.
982437	Keiths Salvage	Plains Rd	Pittsford	Underground storage tank removed. Contamination found. Investigation needed.
982376	Town Of Plainfield Wastewater Plant		Plainfield	Underground Storage Tank Removed. Contamination Found. Investigation Needed.
911155	Plymouth General Store	Rt 100	Plymouth	Quarterly/semi-annual Groundwater Monitoring
972313	North Pomfret Store	Pomfret Rd	Pomfret	Underground Storage Tank Removed. Contamination Found. Investigation Needed
770017	Staco	Beaman Road, Route 30	Poultney	Remedial Work Complete, Long Term Monitoring In Redevel Of Contam Prop
770018	Old Poultney Dump	Dump Road	Poultney	Landfill Monitoring Wells Sampled Annually.
931531	Main St Stewarts Shop	Main And Maple St	Poultney	G W Monitoring Ongoing
941557	Poultney Mobil	1 East Main St	Poultney	Report For Pah Investigation And Soil Hazardous Waste Determination Due 8/21/98.
961977	Poultney Bp/exxon	12 - 14 Main St	Poultney	Next sampling round spring 99
962120	Healds Garage	2 Beaman St	Poultney	Request Degree And Extent Of Contamination
972317	York Street Auto	83 York St	Poultney	Underground Storage Tank Removed. Contamination Found. Investigation Needed.
982429	Bixbys	34 Bentley Ave	Poultney	Underground storage tank removed. Contamination found. Investigation needed.





# State of Vermont

AGENCY OF NATURAL RESOURCES  
Department of Environmental Conservation  
Waste Management Division  
103 South Main Street/West Office  
Waterbury, Vermont 05671-0404  
(802) 241-3888  
FAX (802) 241-3296

Department of Fish and Wildlife  
Department of Forests, Parks and Recreation  
Department of Environmental Conservation  
State Geologist  
RELAY SERVICE FOR THE HEARING IMPAIRED  
1-800-253-0191 TDD>Voice  
1-800-253-0195 Voice>TDD

September 25, 1998

Mr. Al Curtis  
Owner's Services, Inc.  
41 School Street  
Proctor, Vermont 05765

RE: Petroleum Contamination at Bixby's Bulk Storage  
Poultney, Vermont  
SMS Site # 98-2429

Dear Mr. Curtis:

The Sites Management Section (SMS) has received the Underground Storage Tank (UST) closure site report outlining subsurface conditions for the above referenced site. The fieldwork was conducted by Malter Consulting on May 26, 1998. This report, dated June 10, 1998 and summarizes the degree and extent of contamination encountered. The USTs removed include:

- UST #1 - 1,000 gallon kerosene UST

During the site activities, soils screened had concentrations up to 300 parts per million (ppm) as measured by a photoionization detector (PID). The peak PID reading was measured at a depth of 1 foot below ground surface (fbgs) in the excavation. Approximately 12 cubic yards of excavated soil were stockpiled on-site due to the presence of PID elevated headspace readings. The limits of soil contamination were reported as defined. However, no supporting laboratory analyses of soils samples were included with this assessment. Site soils consisted of primarily sand and gravel. Groundwater was measured in a site monitoring well at approximately 8 fbgs. Visual observations of groundwater during the UST removal did not exhibit signs of contamination (e.g. free-product).

The Bixby's Bulk Storage was inspected for potentially sensitive receptors. The receptors potentially affected include groundwater, soil, and nearby surface water.

Based on the report information, the SMS has determined that additional work is necessary at the site in order to determine the severity of contamination present. Due to the possibility of contaminant impact to nearby receptors, the SMS is requesting that Owner's Services, Inc. retain the services of a qualified environmental consultant to perform the following:

- ☐ Demonstrate the limits of contamination have been defined through the use of laboratory analyses of soil. SMS's major concern is to ensure groundwater has not been impacted. As such an alternate approach might be to sample the monitoring wells downgradient of the release area. A sufficient number of monitoring sites should be employed. All groundwater samples taken should be analyzed for TPH and BTEX compounds. At sites with nearby water supply sources, data should be collected to determine the hydrologic relationship of the contaminated area to the water

supply source. Pumping influences should be considered in the evaluation.

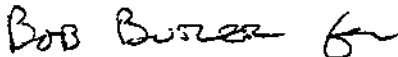
Please have your consultant submit a preliminary work plan and cost estimate or a site investigation expressway notification form within fifteen days of your receipt of this letter so that it may be approved prior to the initiation of onsite work. Enclosed please find a list of consultants who perform this type of work in the area as well as the brochure "Selecting Your UST Cleanup Contractor," which will help you in choosing an environmental consultant.

Based on current information, the underground storage tanks at Bixby's Bulk Storage are eligible for participation in the Petroleum Cleanup Fund (PCF). You must provide written proof to the SMS that you hold no other applicable insurance in order to receive reimbursement from the PCF. The owner or permittee must pay for the removal and/or repair of the failed tank(s), and for the initial \$10,000.00 of the cleanup. The fund will reimburse the tank owner or permittee for additional eligible cleanup costs of up to \$1 million. All expenditures must be pre-approved by the Agency or performed in accordance with the "Site Investigation Guidance" expressway program. Please refer to the enclosed guidance document titled, "Procedures for Reimbursement from the Petroleum Cleanup Fund" for additional information concerning the PCF.

The Secretary of the Agency of Natural Resources reserves the right to seek cost recovery of fund monies spent at the Bixby's Bulk Storage site if the Secretary concludes that Owner's Services, Inc. is in significant violation of the Vermont Underground Storage Tank Regulations or the Underground Storage Tank statute (10 V.S.A., Chapter 59).

We realize that this is a lot to absorb and respond to. We are here to help make this process as effective and uncomplicated as possible. Please review the enclosed documents and call me with any questions you may have. I can be reached at (802) 241-3876.

Sincerely,



Chuck Schwer, Supervisor  
Sites Management Section

Enclosures (3)

cc: Poultney Selectboard w/o enclosure  
Poultney Health Officer w/o enclosure  
DEC Regional Office w/o enclosure (transmitted electronically)  
John Malter, Malter Consulting w/o enclosure (transmitted electronically)

L12429.WPD



## State of Vermont

Department of Fish and Wildlife  
Department of Forests, Parks and Recreation  
Department of Environmental Conservation  
State Geologist  
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AGENCY OF NATURAL RESOURCES  
Department of Environmental Conservation  
Waste Management Division  
103 South Main Street/West Office  
Waterbury, Vermont 05671-0404  
(802) 241-3888  
FAX (802) 241-3296

October 16, 1998

Mr. Al Curtis  
Owner's Services, Inc.  
41 School Street  
Proctor, Vermont 05765

RE: Petroleum Contamination at Bixby's Bulk Storage  
Poultney, Vermont  
SMS Site # 98-2429

Dear Mr. Curtis:

Attached is a workplan to conduct the work requested in our letter to you dated September 25, 1998. It was submitted to me via email by John Malter. We have approved the work and associated costs as eligible for reimbursement under the Petroleum Cleanup Fund (PCF). However, note that there is a deductible of \$10,000 that needs to be met before reimbursement can occur.

I also asked John to provide a workplan to conduct the soil pile monitoring as requested in our previous letter.

If you have any questions, please contact me. I can be reached at 241-3892.

Sincerely,

Robert G. Butler, Jr.  
Sites Management Section

Enclosure

L22429.WPD

From: Self <BOBB>  
To: Malterport@aol.com  
Subject: 98-2429 / bixbys  
Date sent: Fri, 16 Oct 1998 12:10:34 -0500

Hi John:

Your work plan is approved. Costs are eligible for reimbursement under the PCF.

Please submit a soil screening plan as per our letter of September 25, 1998. Semi-annual monitoring with annual reporting is fine unless you feel otherwise.

I have sent a copy of this to Mr. Curtis via regular mail.

Any questions, please call or email.

-Bob

From: Malterport@aol.com  
Date sent: Thu, 15 Oct 1998 16:44:11 EDT  
To: BOBB@dec.anr.state.vt.us  
Subject: Bixby's field sampling

Hi Bob;

I am planning to collect a groundwater sample from the downgradient monitoring well located at the Bixby's Facility in Poultney late next week. I will collect a TPH sample for EPA Method 8100 analysis and a BTEX sample for Method 8021B. The samples will be collected after purging three well volumes and checking the pH, Temperature and Conductivity of each well volume. I will also check the groundwater elevations of both the down gradient and cross gradient wells. I will also monitor both wells and the polyencapsulated soil pile with my Photovac Model 2020 photoionization detector(PID) while I am there. I will provide you with a letter report of my findings. I am planning to do this work in conjunction with some other field activities in order to minimize costs associated with travel.

The cost estimate for the work is ~\$600.00. This is based on TPH-\$50.00; 8021B-\$50.00; JAM 6 hours @\$60.00-\$360.00; PID-\$70; Oil/Water Interface Probe-\$25; Travel-25 miles@.32-\$8.00; Telephone; Fax; Copying; Field Supplies \$25.00.

Please give me a call if you have any questions.

Sincerely

John Malter

---

Bob Butler

- 1 -

Fri, 16 Oct 1998 12:10:53



# State of Vermont

AGENCY OF NATURAL RESOURCES  
Department of Environmental Conservation  
Waste Management Division  
103 South Main Street/West Office  
Waterbury, Vermont 05671-0404  
(802) 241-3888  
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Department of Fish and Wildlife  
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Department of Environmental Conservation  
State Geologist  
RELAY SERVICE FOR THE HEARING IMPAIRED  
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1-800-253-0195 Voice>TDD

February 22, 1999

Mr. Al Curtis  
Owner's Services, Inc.  
41 School Street  
Proctor, Vermont 05765

RE: Petroleum Contamination at Bixby's Bulk Storage  
Poultney, Vermont  
SMS Site # 98-2429

Dear Mr. Curtis:

We have received and reviewed a monitoring report for the referenced site. The report was submitted by Malter Consulting, Inc. and is dated February 20, 1999.

The report details sampling of monitoring well MW-5 and screening of the stockpiled soils. Sampling and analyses of MW-5 was done to demonstrate groundwater quality downgradient of the petroleum release area. The groundwater sample from MW-5 did not contain petroleum compounds above method detection limits using EPA method 8021 and 8100.

The soil pile was screened using a PID. Elevated levels of VOCs were detected (15 ppmv) in one sample from the pile.

Thee report recommended annual monitoring of the soil pile until VOC levels are non-detectable. At which time you may petition the SMS to thinspread the soil onsite in accordance with SMS policy. We concur with the recommendation presented in the report.

If you have any questions, please contact Chuck Schwer of this office. He can be reached at 241-3888.

Sincerely,

Robert G. Butler, Jr.  
Sites Management Section

cc: John Malter, Malter Consulting (transmitted electronically) ✓

L32429.WPD

Regional Offices - Barre/Essex Jct./Pittsford/Rutland/N. Springfield/St. Johnsbury

# MALTER CONSULTING, INC.

P.O. Box 176, Waterbury VT 05676

(802)244-7373 FAX (802)244-7570

March 1, 1999

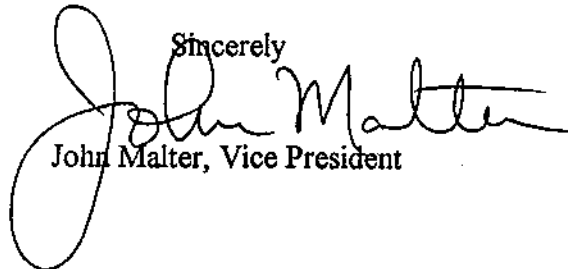
Chris Keyser, President  
Owner Services, Inc.  
41 School Street  
Proctor, VT 05765

Dear Chris;

Enclosed is a copy of my report concerning the sampling and monitoring that was accomplished at the Bixby's Bulk Storage Facility in Poultney in November, 1998. A copy of Bob Butler's report from the Waste Management Division concurred with my findings. The only required on going activity is to monitor the soil pile until the levels of volatile organic compounds is down to background levels. I have enclosed my invoice for this work and the SciTest invoice for their laboratory analysis for Total Petroleum Hydrocarbons and Volatile Organic Compounds. Please pay their invoice directly.

I appreciate the opportunity to be of service to you.

Sincerely

A handwritten signature in cursive script that reads "John Malter". The signature is fluid and extends across the line of the name.

John Malter, Vice President

enc.

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# MALTER CONSULTING, INC.

P.O. Box 176, Waterbury VT 05676

(802)244-7373 FAX (802)244-7570

February 20, 1999

Bob Butler  
Vermont Department of Environmental Conservation  
Sites Management Section  
103 South Main Street  
Waterbury, VT 05671-0404  
FAX# 241-3296

Re: Bixby's Bulk Storage (SMS# 98-2429)

Dear Bob;

The following brief letter report is a follow up to the November 12, 1998 sampling and monitoring at the Bixby's Bulk Storage Facility in Poultney, Vermont. The activities included: monitoring the polyencapsulated soil pile and collecting a groundwater sample from MW-5 located at the western edge of the removed 1,000 gallon kerosene UST excavation.

A total of 12 cubic yards of gravel had been polyencapsulated on a concrete slab located on Bixby's property. The soil pile was 9' by 14'. Nine sampling points were established. Two samples were composited at each of the nine points (See Figure 1). The head space was monitored with a Photovac Model 2020 photoionization detector (PID) with a 10.6 eV lamp that was calibrated on site. Samples 1, 4 and 7 were then mixed and placed in a zip lock bag. The results were no detectable levels of volatile organic compounds (VOC's). Samples 2, 5 and 8 were then mixed and placed in a zip lock bag. The results were 15 ppm for this composited sample. Samples 3, 6 and 9 were then mixed and placed in a zip lock bag. The results were no detectable for VOC's.

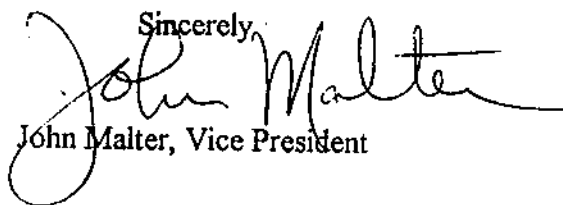
The depth to groundwater at MW-5 was 9.71 feet below the ground surface. When the roadbox cover was opened and the cap for the PVC riser pipe for the well was removed, the well was monitored with a PID. There were no detectable levels of VOC's present with the PID. Due to low groundwater levels, the well was bailed using a dedicated PVC bailer and sampled directly into 40 ml containers. The sample was packed on ice and delivered in a cooler accompanied by a completed chain of custody from the time of sample collection to the time of delivery to the laboratory. The analytical testing was performed by SciTest, Inc. of Randolph, Vermont. The sample was analyzed for volatiles using EPA Method 8021B and for Total Petroleum Hydrocarbons (TPH) using EPA Method 8100. The results of the analytical data showed no detectable levels of volatiles above the method reporting limit and the TPH was <1 mg/L.

---

Other than continuing to monitor the polyencapsulated soil stock pile with a PID until all the levels have gone to background, I recommend that based on the results of this investigation that the Site Management Activity Completed (SMAC) designation be incorporated for this site.

Please feel free to give me a call if you have any questions concerning this report.

Sincerely,

A handwritten signature in cursive script that reads "John Malter". The signature is written in dark ink and is positioned above the printed name.

John Malter, Vice President

enc.

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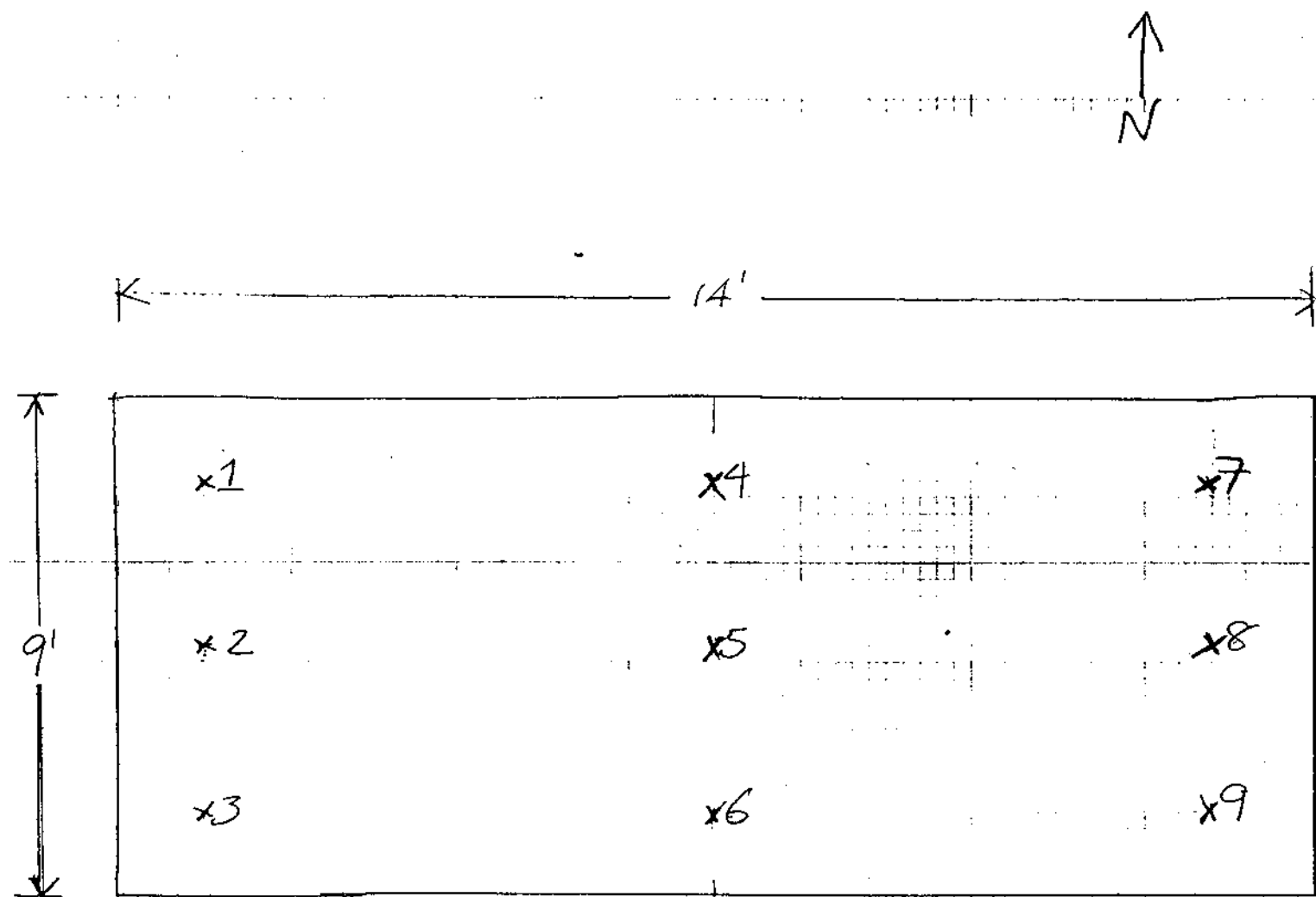


FIGURE 1. SOIL SAMPLING POINTS  
BIXBY'S PETROLEUM

## ANALYTICAL REPORT

P.O. Box 339  
Randolph, Vermont 05060-0339  
(802) 728-6313  
(802) 728-6044 (fax)  
<http://www.scitestlabs.com>

Malter Consulting Inc.  
Thatcher Brook Road  
Waterbury Center, VT 05677


Mr. John Malter

Work Order No.: 9811-04163

Project Name: Bixby's  
Customer Nos.: 070321

Date Received: 11/13/98  
Date Reported: 12/03/98

Sample Desc.: MW-5	Method	Results	Units	Analyst	Analysis Date
Sample Nos: 001					
Test Performed	EPA 8021B			JPM	11/24/98
Volatiles, BTEX	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
Methyl tertiary-Butyl Ether	EPA 8021B	< 0.5	ug/L	JPM	11/24/98
Benzene	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
Toluene	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
Ethylbenzene	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
Total Xylenes	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
1,3,5-Trimethylbenzene	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
1,2,4-Trimethylbenzene	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
Naphthalene	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
Surrogate: 8021B				JPM	11/24/98
***Bromofluorobenzene-8021B		104	% Recovery	JPM	11/24/98
TPH, Estimated - Water	MODIFIED8100 GC/FID	< 1	mg/L	JPM	12/02/98

Authorized by: 

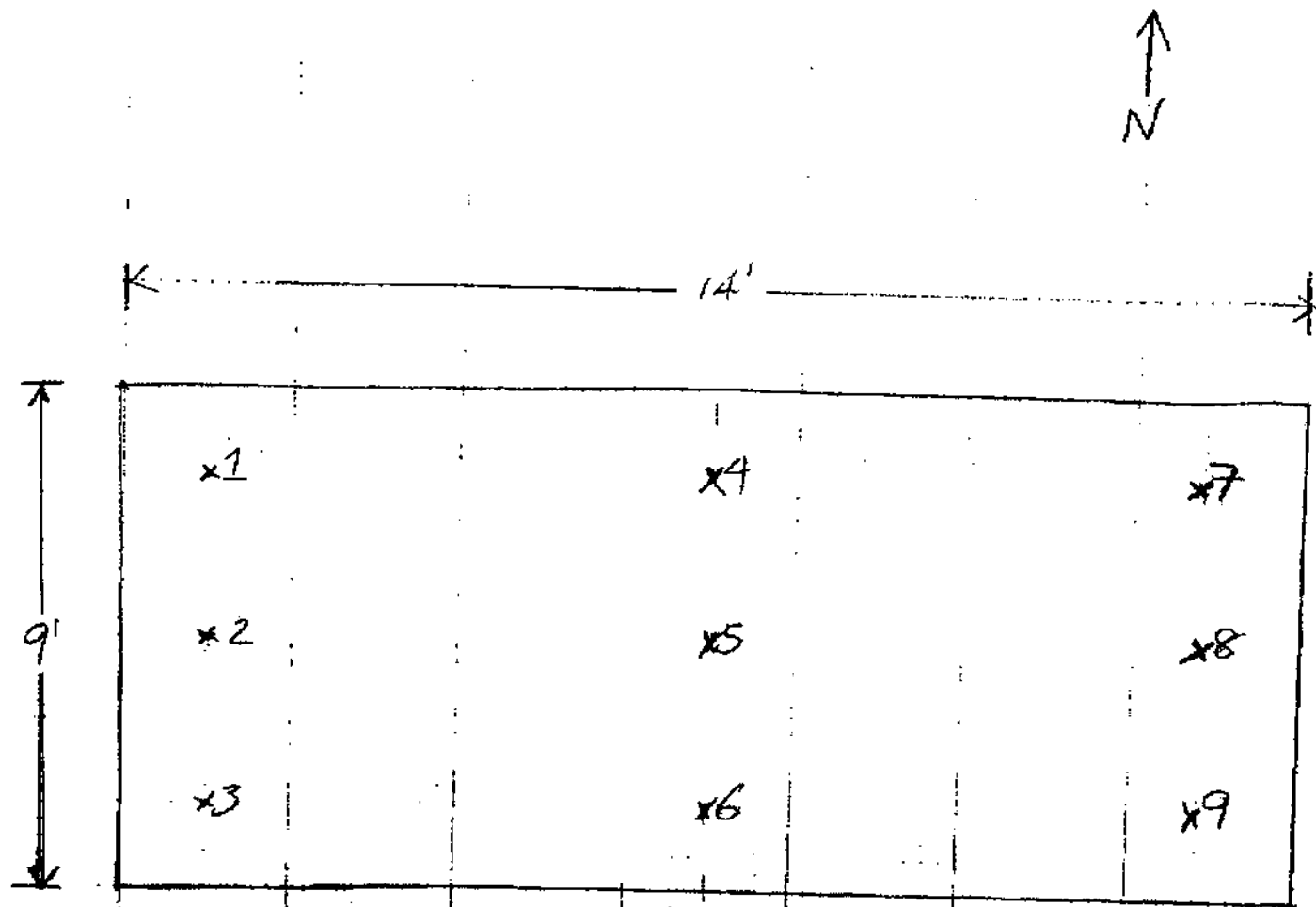


FIGURE 1. SOIL SAMPLING POINTS  
BIXBY'S PETROLEUM



## ANALYTICAL REPORT

Malter Consulting Inc.  
Thatcher Brook Road  
Waterbury Center, VT 05677

Mr. John Malter

Project Name: Bixby's  
Customer Nos.: 070321

P.O. Box 339  
Randolph, Vermont 05060-0339  
(802) 728-6313  
(802) 728-6044 (fax)  
<http://www.scitestlabs.com>

Work Order No.: 9811-04163

Date Received: 11/13/98  
Date Reported: 12/03/98

Sample Desc.: MW-5				Sample Date: 11/12/98	
Sample Nos: 001				Collection Time: 9:12	
Test Performed	Method	Results	Units	Analyst	Analysis Date
Volatiles, BTEX	EPA 8021B			JPM	11/24/98
Methyl tertiary-Butyl Ether	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
Benzene	EPA 8021B	< 0.5	ug/L	JPM	11/24/98
Toluene	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
Ethylbenzene	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
Total Xylenes	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
1,3,5-Trimethylbenzene	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
1,2,4-Trimethylbenzene	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
Naphthalene	EPA 8021B	< 1.0	ug/L	JPM	11/24/98
Surrogate: 8021B				JPM	11/24/98
***Bromofluorobenzene-8021B		104	% Recovery	JPM	11/24/98
TPH, Estimated - Water	MODIFIED8100 GC/FID	< 1	mg/L	JPM	12/02/98

Authorized by:

## REFERRAL OF A PETROLEUM SITE

TO: CHUCK SCHWER, SUPERVISOR Sites Management Section

FROM: June Middleton, Permit Administrator, UST Program

DATE: 6/29/98 UST Program

DATE: AS

On 6/12/98 the Management & Prevention Section was notified of a Leak/LUST found during a routine UST monitoring/closure at Bixby's. The petroleum contamination was reported by John Maltzer or Maltzer Consulting

PHONE # of person reporting release 802 244-7373

Name and Phone # of facility owner (contact) Al Curtis

459-3349

Facility ID# 2

## Responsible Party:

OWNER Services Inc.

Was Land Owner DIRECTED by DEC to remove tank(s)? NO/YES.

Is Land Owner eligible for reimbursement for cost of removing tank(s)? NO/YES

Were tank(s) permitted for operation at any time? YES/NO

If tank(s) abandoned, year of abandonment

USE OF TANK(s) at time of abandonment? farm/residential/commercial/service station/retail/state/federal

## UST Financial Responsibility:

Petroleum Clean Up Fund Assessment # 1704

PCF Eligible

NO

YES

Deductible

NO

YES

Cost Recovery applicable

NO

YES

If yes, reason

\$10K

## Insurance Company

Self Insured

NO

YES

Federal Insured

NO

YES

## This site is believed to involve:

Soil Contamination

NO

YES

MAYBE

Groundwater Contamination

NO

YES

MAYBE

Free Product Contamination

NO

YES

MAYBE

Vapor Impact on Buildings

NO

YES

MAYBE

Threatened/Impacted Water Supply

NO

YES

MAYBE

Surface Water Impact

NO

YES

MAYBE

sample wells

Not indicated in report.

MAYBE

Attached is a copy of the Pull Form. Trip Report Enclosed

## COMMENTS:

2 muv's on-site. Potentially cross-gradient of point of release. Ground not sampled. 12 yds<sup>3</sup> of contaminated soil encapsulated on-site. (AS)

**APPENDIX C.3**

**VT DEC SPILLS DATABASE**

**ANR/DEC Hazardous Materials Division  
Spills Data Base Listing Open/Closed By Town**

*Poultney*

Town: Foultney

Year/Number 75 031	Date/Time: 4/11/75	Facility Information Jordans Fuel	Responsible Party Merrill Transport	Reporter Name/Organization	Case Assigned	Actions Taken	Date Closed	Closure Code
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Surface Water Affected:	Product: #2	Quantity/Unit: 4 G	Incident Type Spill During Delivery	Date/Time of Incident	Comments:	No Further Info Avail
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Person Who Took Complaint::

Town: Poultney

Year/Number 78 090	Date/Time: 4/3/78	Facility Information B p Station	Responsible Party	Reporter Name/Organization	Case Assigned	Actions Taken W.r.f.d. Invest	Date Closed	Closure Code
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Surface Water Affected:	Product: Gasoline	Quantity/Unit: 3000 G	Incident Type Lust	Date/Time of Incident	Comments:	100g Recovered
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Person Who Took Complaint::

Town: Poultney

Year/Number 79 137	Date/Time: 12/10/79	Facility Information Staco Corp	Responsible Party	Reporter Name/Organization	Case Assigned	Actions Taken Site Invest	Date Closed	Closure Code
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Surface Water Affected:	Product: Mercury	Quantity/Unit: 70 P	Incident Type Mercury Collected On Ground	Date/Time of Incident	Comments:
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Person Who Took Complaint::

Town: Poultney

Year/Number 81 021	Date/Time: 2/17/81	Facility Information Private Residence	Responsible Party	Reporter Name/Organization	Case Assigned	Actions Taken	Date Closed	Closure Code
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Surface Water Affected:	Product: #2	Quantity/Unit: 100 G	Incident Type Oil Drained From Tank	Date/Time of Incident	Comments:	Neighbors Well Contaminated
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Person Who Took Complaint::

# **ANR/DEC Hazardous Materials Division Spills Data Base Listing Open/Closed By Tow**

Town: Poultney

Year/Number 81 036	Date/Time: 3/5/81	Facility Information Poultney Valley Club	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken W.r Investigated	DateClosed	ClosureCode
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SurfaceWaterAffected: Club Pond	Product: # 2	Quantity/Unit: 275 G	Incident Type Tank Leak-floor,pipe,pond	Date/Time of Incident	Comments:
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Person Who Took Complaint::

Town: Poultney

Year/Number 81 197	Date/Time: 11/19/81	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken W.r Invest H.d. Contacted	DateClosed	ClosureCode
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SurfaceWaterAffected:	Product: # 2	Quantity/Unit: 100	Incident Type Lust	Date/Time of Incident	Comments: Well Is Contaminated
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Person Who Took Complaint::

Town: Poultney

Year/Number 82 045	Date/Time: 3/11/82	Facility Information John Thomas Residence	ResponsibleParty John Thomas Poultney	Reporter Name/Organization	Case Assigned	ActionsTaken Report Taken	DateClosed	ClosureCode
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SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type Inloader Corrosion	Date/Time of Incident	Comments: No Further Info Available
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Person Who Took Complaint::

Town: Poultney

Year/Number 82 122	Date/Time: 7/15/82	Facility Information	ResponsibleParty Agmark	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
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SurfaceWaterAffected:	Product: Milk & # 2	Quantity/Unit: 2000 G	Incident Type Truck Accident	Date/Time of Incident	Comments: Agmark Clean Up
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Person Who Took Complaint::



# **ANR/DEC Hazardous Materials Division Spills Data Base Listing Open/Closed By Tow**

Town: Poultney

Year/Number	Date/Time:	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
82 146	8/30/82							

SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:
	Gasoline	100 G	Lust		Nemo Clean Up

Person Who Took Complaint::

Town: Poultney

Year/Number	Date/Time:	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
83 164	9/11/83	Rt 140		State Police		F d contained And Clean Up		

SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:
	Diesel Fuel	75 G	Truck Accident		

Person Who Took Complaint::

Town: Poultney

Year/Number	Date/Time:	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
83 168	9/19/83	Poultney High School	Unk	Art Huang		Report Taken		

SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:
	Ammonium Phosphate	9	Vandalism-fire Exting emptied		

Person Who Took Complaint::

Town: Poultney

Year/Number	Date/Time:	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
84 036	3/16/84	Main St		Jim Jordan		No Leak Found		

SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:
	Gas		Poss Lust		

Person Who Took Complaint::

# **ANR/DEC Hazardous Materials Division Spills Data Base Listing Open/Closed By Tow**

Town: Poultney

Year/Number 84 082	Date/Time: 6/15/84	Facility Information 8 Main St	ResponsibleParty	Reporter Name/Organization Mrs John Mcshane	Case Assigned	ActionsTaken	DateClosed	ClosureCode
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SurfaceWaterAffected:	Product: Unk	Quantity/Unit:	Incident Type Odor In Basement	Date/Time of Incident	Comments:
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Person Who Took Complaint::

Town: Poultney

Year/Number 85 059	Date/Time: 4/5/85	Facility Information Green Mtn College	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken Advise, clean Up & Monitor	DateClosed 4/26/85	ClosureCode
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SurfaceWaterAffected: Possible	Product: # 6	Quantity/Unit: 2000	Incident Type Oil Spill	Date/Time of Incident	Comments: Closed
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Person Who Took Complaint::

Town: Poultney

Year/Number 86 127	Date/Time: 7/31/86	Facility Information Nxt To Saico Toy Manu	ResponsibleParty	Reporter Name/Organization Janet Estelle	Case Assigned	ActionsTaken Took Samples	DateClosed	ClosureCode
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SurfaceWaterAffected:	Product: Unk	Quantity/Unit:	Incident Type Poss. Contamination In Soil	Date/Time of Incident	Comments: Closed
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Person Who Took Complaint::

Town: Poultney

Year/Number 90 141	Date/Time: 6/21/90	Facility Information Lake St Catherine 930	ResponsibleParty Lake St Catherine Assoc  Poultney	Reporter Name/Organization Norm Brown Fish & Wildlife	Case Assigned	ActionsTaken Assisted For Clean Up	DateClosed 6/22/90	ClosureCode 01
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SurfaceWaterAffected: Lake St Catherin	Product: Hydraulic Oil	Quantity/Unit: 5	Incident Type Weed Cutter Hose Burst	Date/Time of Incident	Comments:
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Person Who Took Complaint: Bill Barry

**ANR/DEC Hazardous Materials Division  
Spills Data Base Listing Open/Closed By Tow**

Town: Poultney

Year/Number	Date/Time:	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
91 048	3/4/91	Green Mountain College		Peter Boardman		Village Mgr Notified	3/12/91	

SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:
	Septage		Sewage Surfacing On Soccer Fld		

Person Who Took Complaint:: Paul Van Hollebeke

Town: Poultney

Year/Number	Date/Time:	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
91 137	6/13/91	Staco Thermometer	Staco Thermometer Co	Bob Demange Emer Mgmt-poultney Fire Dept		Advice Only.	6/13/91	R

SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:
	Nitric Acid		Nitric Acid Spill-vandalism		N.e.m. Clean Up On 6/14/91

Person Who Took Complaint:: Chuck Schwer

Town: Poultney

Year/Number	Date/Time:	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
93 222	8/4/93	1 Roberts Ave	Sherman V Allen	Paul Herman Poultney Town Manager		Report Taken, Advice On Clean Up	8/4/93	02

SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:
	#2		Fuel Oil Spill During Transfer		S V Allen Clean Up

Person Who Took Complaint:: Chuck Schwer

Town: Poultney

Year/Number	Date/Time:	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
94 WMD370	12/21/94	204 Boyce Ave	Tom Jamieson	Carol Pesture		Rp To Call Enviro Prod And Services	1/19/95	01

SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:
	#2	200 G	Oil Spill To Ground		Soil Stockpiled-awaiting Report- 1/19/95

Person Who Took Complaint:: Gary Unch

# **ANR/DEC Hazardous Materials Division** **Spills Data Base Listing Open/Closed By Tow**

Town: Poultney

Year/Number	Date/Time:	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
95 WMD260	9/1/95	Poultney Mobil 1 E Main		Theresa Midway Oil	Spills	Station Operator Absorbed With Pads	9/1/95	01

SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:
	Gasoline	4 G	Gasoline Spilled By Customer At Pump		

Person Who Took Complaint:: Bill Barry

Town: Poultney

Year/Number	Date/Time:	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
97 WMD118	4/4/97	VT Slate Co Sallis Rd <i>James</i>	Vt Structural Slate Co Sallis Rd North Poultney	Anon	Rcra-unch	Behind Garagesite Visit- 4/9/97-no Violation Observed	4/7/97	R

SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:
	Oil		50 - 60 Drums Found		

Person Who Took Complaint:: Gary Unch

Town: Poultney *if 2 2*

Year/Number	Date/Time:	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
97 WMD433	12/19/97	Autumn Leaves Apartments		Ed Lincoln	Spills	Will Do Borings To Id Plume	4/23/98	01

SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:
	Benzene Compounds		Vapors In Building		2/12-non-detect 4/22/98-non-detect

Person Who Took Complaint:: Marc Roy

Town: Poultney *James*

Year/Number	Date/Time:	Facility Information	ResponsibleParty	Reporter Name/Organization	Case Assigned	ActionsTaken	DateClosed	ClosureCode
98 WMD062	2/22/98	Delahanty Residence 1140 292 Fern Cliff Rd	Clara Delahanty 18 Watson Drive West Simsbury	Moe Forcier En Mgmt	Spills	Pads Taken To House	9/22/98	02

SurfaceWaterAffected:	Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:
1 k St Catherine	#2	250 G	Failed Above Ground Tank	2/22/98	Cleanup Contractor To Site (lag). Report To Follow.

Person Who Took Complaint:: Richard Spiese

**ANR/DEC Hazardous Materials Division  
Spills Data Base Listing Open/Closed By Tow**

Town: Poultney

Year/Number	Date/Time	Facility Information	Responsible Party	Reporter Name/Organization	Case Assigned	Actions Taken	Date Closed	Closure Code
98 WMD207	5/29/98	Poultney River 1000	Unknown	Anonymous		Eco Investigated, No Evidence Of Release	6/5/98	01
<hr/>								
Surface Water Affected:		Product:	Quantity/Unit:	Incident Type	Date/Time of Incident	Comments:	Anonymous Caller Contacted	
		Unknown		Blue Stuff In River	5/29/98	0	Williston Sp. No Other Info	
<hr/>								
Person Who Took Complaint:		Ted Unkles						

**APPENDIX C.4**

**RCRA GENERATOR LIST**

RCRA.

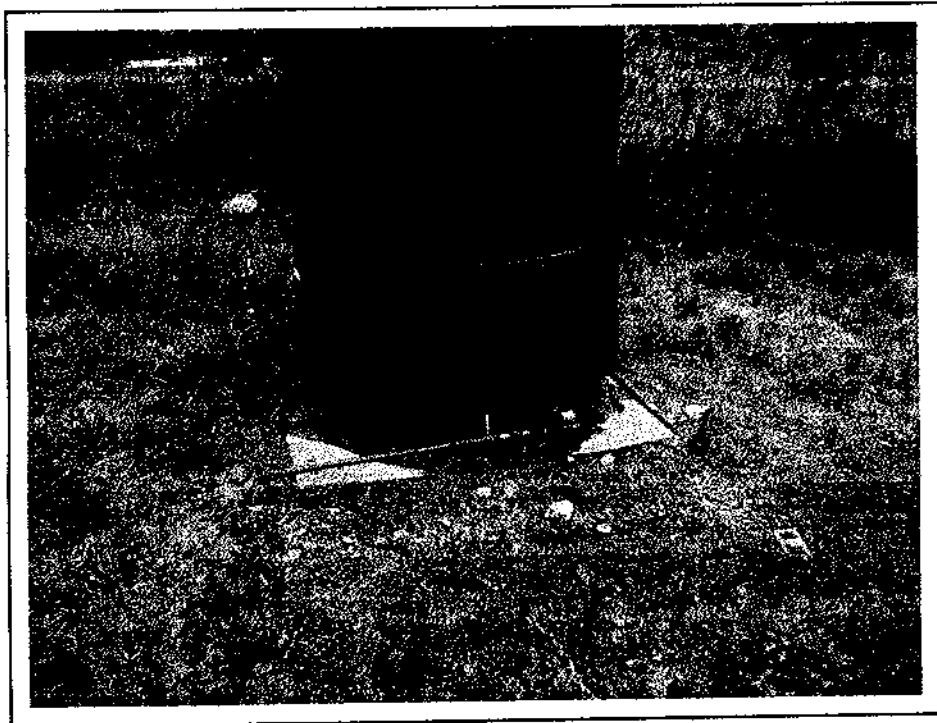
Status	File Number	Epa id#	Facility Name	Street location	Town	File Local
S	11-16-016		MARKOWSKI EXCAVATING	WEST RD	PITTSFORD	
S	11-16-011		PITTSFORD SERVICE CENTER		PITTSFORD	
C	11-16-015		PITTSFORD TOWN GARAGE	PLEASANT ST	PITTSFORD	
C	11-16-006		PITTSFORD WWTF		PITTSFORD	
C	11-16-001		VERMONT ART STUDIO		PITTSFORD	
C	11-16-004	VTR000003087	VERMONT STATE BUILDINGS		PITTSFORD	
NG	12-14-001		GODDARD COLLEGE		PLAINFIELD	PR
C	12-14-003		MONTEITH CO	LOWER ROAD	PLAINFIELD	
C	12-14-004		NON-TOXIC LUBRICANTS		PLAINFIELD	
S	12-14-002		PLAINFIELD AUTO PARTS		PLAINFIELD	
C	11-17-001	VTD980510366	CENTRAL VERMONT PUBLIC SERVICE		POULTNEY	
C	11-17-012		18 IDEAL HORIZONS	1 IDEAL WAY	POULTNEY	
OB	11-17-007	VTD981063225	19 JAYMAR SPECIALTY		POULTNEY	PR
C	11-17-002	VT5000002410	20 JOURNAL PRESS INC		POULTNEY	
S	11-17-006		ROUTE 30 AUTO SALES > 1/2 mile		POULTNEY	
OB	11-17-009		11 STACO		POULTNEY	PR
S	11-17-005		TONY AND SON > 1 mile		POULTNEY	
S	11-17-008		2 TOWN OF POULTNEY ? Town Garage ?		POULTNEY	
S	11-17-004		21 WESTGOTT'S GARAGE > mile		POULTNEY	
C	11-17-003	VTD988366373	9 WILLIAMS MACHINE COMPANY		POULTNEY	
S	11-17-010		WOODS SALVAGE R+30 > 1 mile		POULTNEY	
C	11-17-011		21 YORK COACHWORKS INC	9 YORK STREET	POULTNEY	
S	02-07-008		COUNTRY AUTO		POWNA	
OB	02-07-006	VTD000791384	GENERAL CABLE CO.		POWNA	PR
C	02-07-001	VT5000000372	GREEN MOUNTAIN GROCERS		POWNA	
S	02-07-007		J&M AUTO BODY		POWNA	
C	02-07-002		MACK MOLDING COMPANY		POWNA	
OB	02-07-004	VTD002074839	POWNA TANNING COMPANY INC	OFF ROUTE 346	POWNA	PRPEN

**APPENDIX D**  
**PHOTOGRAPHS**





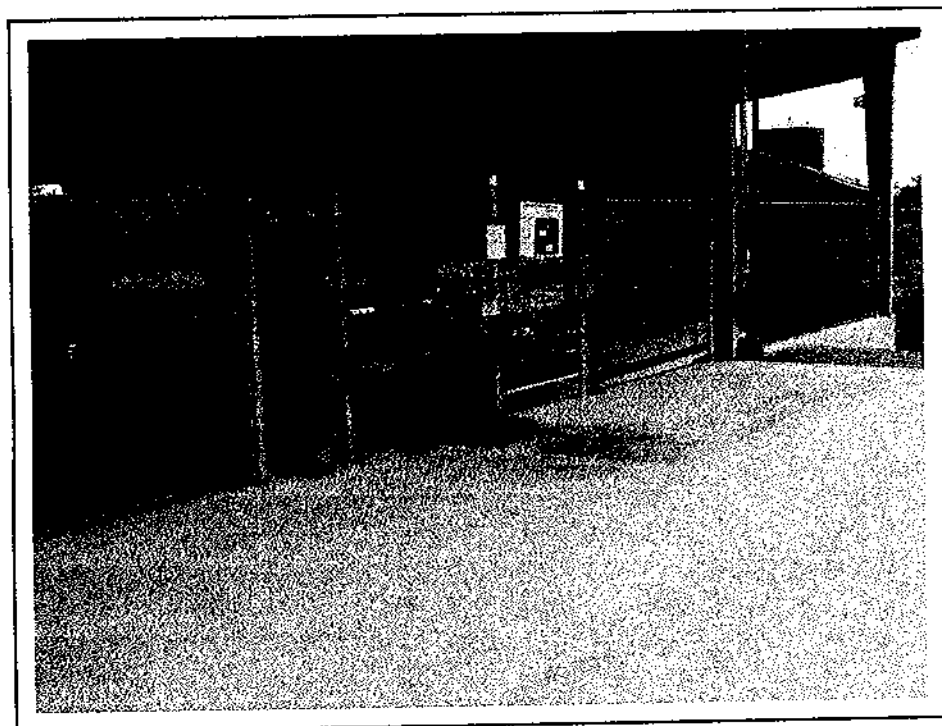
Current Delivery Truck Loading Area  
View is Toward Intermittent Stream



20,000-Gallon Diesel AST Remaining in Former AST Area



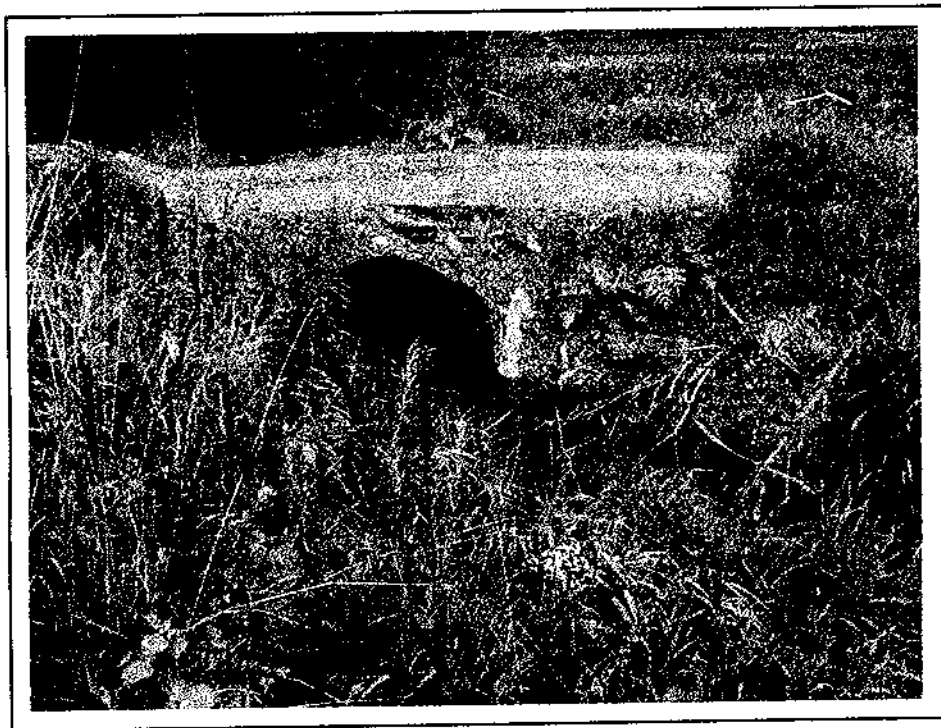
Maintenance Garage/Office Building, Storage Barns, and Fuel Dispensing Island  
(in northern portion of site)



Current Transporter Unloading Area overlooking New AST Containment Area  
(20,000-gallon AST at top right corner of photograph)



20,000-Gallon Diesel AST Remaining in Former AST Area




Culvert along Intermittent Stream

**APPENDIX E**

**GEOPROBE SOIL BORING LOGS**

# Marin Environmental, Inc.

SITE NAME: Bixby's				BORING NO: GP-1				PVC elev. 100.00				
LOCATION: 34 Bentley Ave. Poultney, VT				TOTAL DEPTH: 10.33				GS elev.: Not Determined				
JOB NO. 990023				DEPTH TO WATER FROM PVC: 6.87								
DATE: 27 August 1999				FIELD SUPERVISOR: Darlene Autery								
DRILLING METHOD Geoprobe				CONTRACTOR: Environmental Drilling, Inc.				See Site location Plan				
BORING DIAMETER 1.5"												
Depth (ft)	Sample No.	BLOW COUNTS PER 6"					Rec. (ft)	SAMPLE DESCRIPTION	STRATA	WELL DETAIL		PID (ppm)
		0	6	12	18	24						
0-4'	S-1	N/A					24"	Tan, SAND and GRAVEL. Dry, fill, no odors.	SAND and GRAVEL	 1" PVC Screen		ND
4'-8'	S-2	N/A					24"	Brown, SAND and GRAVEL; overlying 6" of red slate; overlying F. SAND. Wet at ~6'.	F. SAND			ND
8'-12'	S-3	N/A					24"	Gray, F. SAND				ND
								Bottom of Boring @ 12'				

		BLOW COUNT		MATERIALS USED		SIZE/TYPE	QUANTITY
AND SOME LITTLE TRACE	33-50%	0 - 4	VERY LOSE	WELL SCREEN	1" PVC	10'	
	20-33%	4 - 10	LOOSE	SLOT SIZE	0.01		
	10-20%	10 - 30	MEDIUM	RISER	1"		
	0-10%	30 - 50	DENSE	GRADED SAND	None		
		> 50	VERY DENSE	BENTONITE PELLETS	None		
				BENTONITE GROUT	None		

# Marin Environmental, Inc.

SITE NAME: Bixby's LOCATION: 34 Bentley Ave. Poultney, VT JOB NO. 990023 DATE: 27 August 1999				BORING NO: GP-2 TOTAL CASING DEPTH: 12.4 TOP OF CASING ELEV.: 98.76 GROUND SURFACE ELEVATION: 97.51 DEPTH TO WATER (FROM TOC): 6.09				See Site Location Plan						
DRILLING METHOD Geoprobe				FIELD SUPERVISOR: Darlene Autery										
BORING DIAMETER 1.5"				CONTRACTOR: Environmental Drilling, Inc.										
Depth (ft)	Sample No.	BLOW COUNTS PER 6"						Rec. (ft)	SAMPLE DESCRIPTION	STRATA	Boring/Well Location			PID (ppm)
		0	6	12	18	24	WELL DETAIL							
0-4'	S-1	N/A					24"	Blk, SAND and GRAVEL. Strong petroleum odors. Dry.	F. SAND	1" PVC Riser			49	
4'-8'	S-2	N/A					40"	Blk, F. SAND. Strong petroleum odors. Wet.	F. SAND	1" PVC Screen			11	
8'-12'	S-3	N/A					40"	Same as above, less odors.	F. SAND	1" PVC Screen			10	
Bottom of Boring @ 12'														

		BLOW COUNT		MATERIALS USED	SIZE/TYPE	QUANTITY
AND  SOME  LITTLE  TRACE	33-50%  20-33%  10-20%  0-10%	0 - 4	VERY LOSE	WELL SCREEN	1" PVC	10'
		4 - 10	LOOSE	SLOT SIZE	0.01	
		10 - 30	MEDIUM	RISER	1"	5'
		30 - 50	DENSE	GRADED SAND	None	
		> 50	VERY DENSE	BENTONITE PELLETS	None	
				BENTONITE GROUT	None	

## Marin Environmental, Inc.

SITE NAME: Bixby's LOCATION: 34 Bentley Ave. Poultney, VT JOB NO. 990023 DATE: 27 August 1999						BORING NO: GP-3 TOTAL CASING DEPTH: 14.03 TOP OF CASING ELEV.: 100.29 GROUND SURFACE ELEVATION: 97.58 DEPTH TO WATER (FROM TOC): 8.10						See Site Location Plan					
DRILLING METHOD Geoprobe						FIELD SUPERVISOR: Darlene Autery											
BORING DIAMETER 1.5"						CONTRACTOR: Environmental Drilling, Inc.											
Depth (ft)	Sample No.	BLOW COUNTS PER 6"						Rec. (ft)	SAMPLE DESCRIPTION	STRATA SAND and GRAVEL	Boring/Well Location						
		0 6	6 12	12 18	18 24	WELL DETAIL						PID (ppm)					
0-4'	S-1	N/A					36"	Blk., SAND and GRAVEL. Fill	GRAVEL			1" PVC Riser	150				
4'-8'	S-2	N/A					48"	Brn., F. SAND, some Silt. Wet	Silty F. SAND			1" PVC Screen	1				
8'-12'	S-3	N/A					48"	Brn., F. SAND, some Silt, Little Clay. Clay in discrete layers	Silty F. SAND				1				
								Bottom of Boring at 12.0'.									
		BLOW COUNT						MATERIALS USED	SIZE/TYPE	QUANTITY							
		0 - 4	VERY LOSE					WELL SCREEN	1" PVC	10'							
AND 33-50%		4 - 10	LOOSE					SLOT SIZE	0.01								
SOME 20-33%		10 - 30	MEDIUM					RISER	1"	5'							
LITTLE 10-20%		30 - 50	DENSE					GRADED SAND	None								
TRACE 0-10%		> 50	VERY DENSE					BENTONITE PELLETS	None								
								BENTONITE GROUT	None								

**Marin Environmental, Inc.**

[illegible]



# Marin Environmental, Inc.

SITE NAME: Bixby's LOCATION: 34 Bentley Ave. Poultney, VT JOB NO. 990023 DATE: 27 August 1999			BORING NO: GP-5 TOTAL CASING DEPTH: N/A TOP OF CASING ELEV.: N/A GROUND SURFACE ELEVATION: N/A DEPTH TO WATER (FROM TOC): N/A			See Site Location Plan								
DRILLING METHOD Geoprobe			FIELD SUPERVISOR: Darlene Autery  CONTRACTOR: Environmental Drilling, Inc.											
BORING DIAMETER 1.5"														
Depth (ft)	Sample No.	BLOW COUNTS PER 6"					Rec. (ft)	SAMPLE DESCRIPTION	STRATA	Boring/Well Location			PID (ppm)	
		0	6	12	18	24				WELL DETAIL	N	o		W
0-4'	S-1	N/A					36	Brn, SAND and GRAVEL, fill. Some blk staining. No apparent odors. Dry.						0
4'-8'	S-2	N/A					30	Brn, SAND and GRAVEL; overlying 2" Clay lense; overlying 2" F. SAND, some Silt. Wet						0
8'-12'	S-3	N/A					48	Gray, F. SAND, some Silt. 2" Clay lenses ~ every 18 inches.						0

		BLOW COUNT		MATERIALS USED		SIZE/TYPE	QUANTITY
		0 - 4	VERY LOSE	WELL SCREEN		1" PVC	10'
AND	33-50%	4 - 10	LOOSE	SLOT SIZE		0.01	
SOME	20-33%	10 - 30	MEDIUM	RISER		1"	5'
LITTLE	10-20%	30 - 50	DENSE	GRADED SAND		None	
TRACE	0-10%	> 50	VERY DENSE	BENTONITE PELLETS		None	
				BENTONITE GROUT		None	

**Marin Environmental, Inc.**[illegible]

**Marin Environmental, Inc.**

SITE NAME: Bixby's		BORING NO: GP-7		See Site Location Plan								
LOCATION: 34 Bentley Ave. Poultny, VT		TOTAL CASING DEPTH: ~13.08'										
JOB NO. 990023		TOP OF CASING ELEV.: 99.80'										
DATE: 27 August 1999		GROUND SURFACE ELEVATION: 96.72'										
DRILLING METHOD		FIELD SUPERVISOR: Darlene Autery		Boring/Well Location								
Geoprobe												
BORING DIAMETER		CONTRACTOR: Environmental Drilling, Inc.										
1.5"												
Depth (ft)	Sample No.	BLOW COUNTS PER 6"				Rec. (ft)	SAMPLE DESCRIPTION	STRATA	WELL DETAIL			PID (ppm)
		0	6	12	18							
0-4'	S-1	N/A				36	Bm, SAND and GRAVEL. Blk stains and petroleum odors.			1" PVC Riser	150	
4'-8'	S-2	N/A				48	Bm, SAND and GRAVEL; overlying, coarse SAND and GRAVEL with sheens. Wet.			1" PVC Screen	150	
8'-12'	S-3	N/A				48	Gray, F. SANDS.				14	
		BLOW COUNT		MATERIALS USED		SIZE/TYPE		QUANTITY				
AND 33-50%		0 - 4	VERY LOSE	WELL SCREEN		1" PVC		10'				
SOME 20-33%		4 - 10	LOOSE	SLOT SIZE		0.01						
LITTLE 10-20%		10 - 30	MEDIUM	RISER		1"		5'				
TRACE 0-10%		30 - 50	DENSE	GRADED SAND		None						
		> 50	VERY DENSE	BENTONITE PELLETS		None						
				BENTONITE GROUT		None						

**Marin Environmental, Inc.**

[illegible]

**Marin Environmental, Inc.**

SITE NAME: Bixby's			BORING NO: GP-9			See Site Location Plan				
LOCATION: 34 Bentley Ave. Poultney, VT			TOTAL DEPTH: ~13.21'							
JOB NO. 990023			TOP OF CASING ELEV.: 97.48'							
DATE: 27 August 1999			GROUND SURFACE ELEVATION: 94.27							
DRILLING METHOD			FIELD SUPERVISOR: Darlene Autery			Boring/Well Location				
Geoprobe										
BORING DIAMETER			CONTRACTOR: Environmental Drilling, Inc.							
1.5"			GEOPROBE OPERATOR: Anthony							
Depth (ft)	Sample No.	BLOW COUNTS PER 6"				Rec. (ft)	SAMPLE DESCRIPTION	STRATA	WELL DETAIL	PID (ppm)
		0	6	12	18	24				
0-4'	S-1	N/A				24	Brn, SAND and GRAVEL, moist.		1" PVC Riser	2.5
4'-8'	S-2	N/A				18	Brn, SAND and GRAVEL stained soils in base of sample. Strong petroleum odors.		1" PVC Screen	95
8'-12'	S-3	N/A				36	Brn, coarse SAND and GRAVEL with petroleum odors and sheens; overlying, f. SAND with less odors, no sheens.			2.6
		BLOW COUNT				MATERIALS USED		SIZE/TYPE	QUANTITY	
AND	33-50%	0 - 4	VERY LOSE		WELL SCREEN		1" PVC	10'		
SOME	20-33%	4 - 10	LOOSE		SLOT SIZE		0.01			
LITTLE	10-20%	10 - 30	MEDIUM		RISER		1"	5'		
TRACE	0-10%	30 - 50	DENSE		GRADED SAND		None			
		> 50	VERY DENSE		BENTONITE PELLETS		None			
					BENTONITE GROUT		None			

# Marin Environmental, Inc.

SITE NAME: Bixby's LOCATION: 34 Bentley Ave. Poultney, VT JOB NO. 990023 DATE: 27 August 1999			BORING NO: GP-10 TOTAL CASING DEPTH: 14.97' TOP OF CASING ELEV.: 99.12' GROUND SURFACE ELEVATION: 95.58' DEPTH TO WATER (FROM TOC): 11.54'			See Site Location Plan		
DRILLING METHOD Geoprobe			FIELD SUPERVISOR: Darlene Autery  CONTRACTOR: Environmental Drilling, Inc.					
BORING DIAMETER 1.5"								
Depth (ft)	Sample No.	BLOW COUNTS PER 6"	GEOPROBE OPERATOR: Anthony		Boring/Well Location			
		0    6    12    18    24 6    12    18    24	Rec. (ft)	SAMPLE DESCRIPTION	STRATA	WELL DETAIL	PID (ppm)	
0-4'	S-1	N/A	36	Brn, SAND and GRAVEL. No apparent staining.		1" PVC Riser	3	
4'-8'	S-2	N/A	48	Brn, SAND and GRAVEL. Moist at tip. No apparent odors.		1" PVC Screen	2.3	
8'-12'	S-3	N/A	48	Brn, SAND and GRAVEL, dry; overlying f/m SAND, wet; overlying F. SAND, some Silt, little Clay.			1.8	

		BLOW COUNT		MATERIALS USED	SIZE/TYPE	QUANTITY
AND  SOME  LITTLE  TRACE	33-50%  20-33%  10-20%  0-10%	0 - 4	VERY LOSE	WELL SCREEN	1" PVC	10'
		4 - 10	LOOSE	SLOT SIZE	0.01	
		10 - 30	MEDIUM	RISER	1"	5'
		30 - 50	DENSE	GRADED SAND	None	
		> 50	VERY DENSE	BENTONITE PELLETS	None	
				BENTONITE GROUT	None	

**Marin Environmental, Inc.**

SITE NAME: Bixby's LOCATION: 34 Bentley Ave. Poultney, VT JOB NO. 990023 DATE: 27 August 1999				BORING NO: GP-11 TOTAL CASING DEPTH: 13.01' TOP OF CASING ELEV.: 96.56' GROUND SURFACE ELEVATION: 93.77' DEPTH TO WATER (FROM TOC): 9.15'				See Site Location Plan    Boring/Well Location				
DRILLING METHOD Geoprobe				FIELD SUPERVISOR: Darlene Autery								
BORING DIAMETER 1.5"				CONTRACTOR: Environmental Drilling, Inc.								
BLOW COUNTS PER 6"				GEOPROBE OPERATOR: Anthony								
Depth (ft)	Sample No.	BLOW COUNTS PER 6"				Rec. (ft)	SAMPLE DESCRIPTION	STRATA	WELL DETAIL			PID (ppm)
		0	6	12	18	24						
0-4'	S-1	N/A					36	Brn, SAND and GRAVEL. Dry.			1" PVC Riser	1.7
4'-8'	S-2	N/A					48	Brn, SAND and GRAVEL; overlying, 1" clayey Silt; overlying, F. SAND.			1" PVC Scre	2
8'-12'	S-3	N/A					48	Gray, F. SAND; overlying, 6" gray CLAY layer; overlying F. SAND, some Silt.				0.3
		BLOW COUNT				MATERIALS USED		SIZE/TYPE	QUANTITY			
AND	33-50%	0 - 4	VERY LOSE		WELL SCREEN	1" PVC	10'					
SOME	20-33%	4 - 10	LOOSE		SLOT SIZE	0.01						
LITTLE	10-20%	10 - 30	MEDIUM		RISER	1"	5'					
TRACE	0-10%	30 - 50	DENSE		GRADED SAND	None						
		> 50	VERY DENSE		BENTONITE PELLETS	None						
					BENTONITE GROUT	None						

**Marin Environmental, Inc.**

SITE NAME: Bixby's			BORING NO: GP-12			See Site Location Plan				
LOCATION: 34 Bentley Ave. Poultney, V			TOTAL DEPTH: 4'							
JOB NO. 990023			DEPTH TO WATER: N/A							
DATE: 27 August 1999										
DRILLING METHOD Geoprobe			FIELD SUPERVISOR: Darlene Autery			Boring/Well Location				
BORING DIAMETER 1.5"			CONTRACTOR: Environmental Drilling, Inc.							
Depth (ft)	Sample No.	BLOW COUNTS PER 6"					GEOPROBE OPERATOR: Anthony	STRATA	WELL DETAIL	PID (ppm)
		0	6	12	18	24				
0-4'	S-1	N/A					18	Bm, SAND and GRAVEL, Fill. Refusal encountered.	NO WELL	400
		BLOW COUNT		MATERIALS USED		SIZE/TYPE		QUANTITY		
AND SOME LITTLE TRACE	33-50%	0 - 4	VERY LOSE	WELL SCREEN	1" PVC	10'				
	20-33%	4 - 10	LOOSE	SLOT SIZE	0.01					
	10-20%	10 - 30	MEDIUM	RISER	1"	5'				
	0-10%	30 - 50	DENSE	GRADED SAND	None					
		> 50	VERY DENSE	BENTONITE PELLETS	None					
				BENTONITE GROUT	None					



**Marin Environmental, Inc.**[illegible]

**Marin Environmental, Inc.**[illegible]

**Marin Environmental, Inc.**

SITE NAME: Bixby's				BORING NO: GP-15				See Site Location Plan					
LOCATION: 34 Bentley Ave. Poultney, VT				TOTAL DEPTH: ~16'									
JOB NO. 990023				DEPTH TO WATER: 14'									
DATE: 27 August 1999													
DRILLING METHOD Geoprobe				FIELD SUPERVISOR: Darlene Autery				Boring/Well Location					
BORING DIAMETER 1.5"				CONTRACTOR: Environmental Drilling, Inc.									
Depth (ft)	Sample No.	BLOW COUNTS PER 6"						GEOPROBE OPERATOR: Anthony	STRATA	WELL DETAIL			PID (ppm)
		0	6	12	18	24	Rec. (ft)						
0-4'	S-1	N/A					24	Bm, SAND and GRAVEL with coal.		NO WELL			1
4'-8'	S-2	N/A					36	Same as above		NO WELL			1
8'-12'	S-3	N/A					12	Same as above.		NO WELL			1
12'-16'							48	Same as above; overlying, F. SAND, Some Silt. Wet @ ~14'bgs.		NO WELL			1

		BLOW COUNT		MATERIALS USED	SIZE/TYPE	QUANTITY
AND SOME LITTLE TRACE	33-50%	0 - 4	VERY LOSE	WELL SCREEN	1" PVC	10'
	20-33%	4 - 10	LOOSE	SLOT SIZE	0.01	
	10-20%	10 - 30	MEDIUM	RISER	1"	5'
	0-10%	30 - 50	DENSE	GRADED SAND	None	
		> 50	VERY DENSE	BENTONITE PELLETS	None	
				BENTONITE GROUT	None	

# Marin Environmental, Inc.

SITE NAME: Bixby's LOCATION: 34 Bentley Ave. Poultney, VT JOB NO. 990023 DATE: 27 August 1999		BORING NO: GP-16 TOTAL DEPTH: ~15' TOP OF CASING ELEV.: 100.26' GROUND SURFACE ELEVATION: 97.18' DEPTH TO WATER (FROM TOC): 8.64' DEPTH TO PETROLEUM PRODUCT: 8.51'		See Site Location Plan  Boring/Well Location									
DRILLING METHOD Geoprobe		FIELD SUPERVISOR: Darlene Autery											
BORING DIAMETER 1.5"		CONTRACTOR: Environmental Drilling, Inc.											
Depth (ft)	Sample No.	BLOW COUNTS PER 6"					Rec. (ft)	SAMPLE DESCRIPTION	STRATA	WELL DETAIL			PID (ppm)
		0	6	12	18	24				1" PVC Riser	1" PVC Screen		
0-4'	S-1	N/A					36	Bm, SAND and GRAVEL; overlying Silty CLAY from 3-4', strong odors and staining.					118
4'-8'	S-2	N/A					36	Bm, SAND and GRAVEL; overlying, F. SAND.					120
8'-12'	S-3	N/A					48	Gray, F. SAND					4.9
		BLOW COUNT		MATERIALS USED		SIZE/TYPE		QUANTITY					
		0 - 4		VERY LOSE		WELL SCREEN		1" PVC		10'			
AND 33-50%		4 - 10		LOOSE		SLOT SIZE		0.01					
SOME 20-33%		10 - 30		MEDIUM		RISER		1"		5'			
LITTLE 10-20%		30 - 50		DENSE		GRADED SAND		None					
TRACE 0-10%		> 50		VERY DENSE		BENTONITE PELLETS		None					
						BENTONITE GROUT		None					

[illegible][illegible]

# Marin Environmental, Inc.

SITE NAME: Bixby's LOCATION: 34 Bentley Ave. Poultney, VT JOB NO. 990023 DATE: 27 August 1999		BORING NO: GP-18 TOTAL DEPTH: ~15' TOP OF CASING ELEV.: 99.26 GROUND SURFACE ELEVATION: 96.59 DEPTH TO WATER (FROM TOC): 10.81' DEPTH TO PETROLEUM PRODUCT: 10.63'				See Site Location Plan  Boring/Well Location							
DRILLING METHOD Geoprobe		FIELD SUPERVISOR: Darlene Autery											
BORING DIAMETER 1.5"		CONTRACTOR: Environmental Drilling, Inc.											
Depth (ft)	Sample No.	BLOW COUNTS PER 6"					Rec. (ft)	SAMPLE DESCRIPTION	STRATA	WELL DETAIL			PID (ppm)
		0 6	6 12	12 18	18 24								
0-4'	S-1	N/A					48	Brn, SAND and GRAVEL.				1" PVC Riser	4
4'-8'	S-2	N/A					36	Brn, SAND and GRAVEL. Stains, sheens and odors.				1" PVC Screen	140
8'-12'	S-3	N/A					48	Brn, SAND and GRAVEL; overlying F. SAND. Wet.					40
		BLOW COUNT		MATERIALS USED		SIZE/TYPE		QUANTITY					
AND 33-50%		0 - 4	VERY LOSE	WELL SCREEN		1" PVC		10'					
SOME 20-33%		4 - 10	LOOSE	SLOT SIZE		0.01							
LITTLE 10-20%		10 - 30	MEDIUM	RISER		1"		5'					
TRACE 0-10%		30 - 50	DENSE	GRADED SAND		None							
		> 50	VERY DENSE	BENTONITE PELLETS		None							
				BENTONITE GROUT		None							

# Marin Environmental, Inc.

SITE NAME: Bixby's LOCATION: 34 Bentley Ave. Poultney, VT JOB NO. 990023 DATE: 27 August 1999		BORING NO: GP-19 TOTAL DEPTH: ~15" TOP OF CASING ELEV.: 102.35' GROUND SURFACE ELEVATION: 99.60' DEPTH TO WATER (FROM TOC): 7.78'		See Site Location Plan									
DRILLING METHOD Geoprobe		FIELD SUPERVISOR: Darlene Autery											
BORING DIAMETER 1.5"		CONTRACTOR: Environmental Drilling, Inc.											
Depth (ft)	Sample No.	BLOW COUNTS PER 6"					Rec. (ft)	SAMPLE DESCRIPTION	STRATA	Boring/Well Location			PID (ppm)
		0	6	12	18	24				WELL DETAIL			
0-4'	S-1	N/A					36	Bm, SAND and GRAVEL. Dry.				1" PVC Riser	12
4'-8'	S-2	N/A					36	Gray, F. SAND. Moist.				1" PVC Screen	20
8'-12'	S-3	N/A					36	Same as above. Wet.					2.4
		BLOW COUNT					MATERIALS USED		SIZE/TYPE	QUANTITY			
		0 - 4		VERY LOSE		WELL SCREEN		1" PVC	10'				
AND 33-50%		4 - 10		LOOSE		SLOT SIZE		0.01					
SOME 20-33%		10 - 30		MEDIUM		RISER		1"	5'				
LITTLE 10-20%		30 - 50		DENSE		GRADED SAND		None					
TRACE 0-10%		> 50		VERY DENSE		BENTONITE PELLETS		None					
						BENTONITE GROUT		None					

**APPENDIX F**

**LABORATORY REPORTS**





**ENDYNE, INC.**

**Laboratory Services**

32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333  
FAX 879-7103

**LABORATORY REPORT**

CLIENT: Marin Environmental  
PROJECT: Bixby's  
REPORT DATE: October 6, 1999

ORDER ID: 3973  
DATE RECEIVED: September 13, 1999

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Different groups of analyses may be reported under separate cover.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

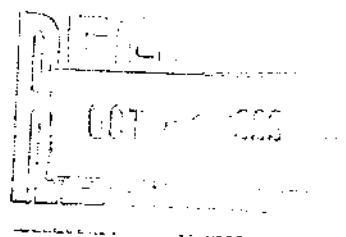
Blank contamination was not observed at levels affecting the analytical results.

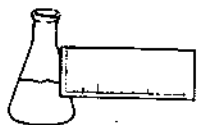
Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits, unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.  
Laboratory Director

enclosures





**ENDYNE, INC.**

**Laboratory Services**

32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333  
FAX 879-7103

**LABORATORY REPORT**

CLIENT: Marin Environmental  
PROJECT: Bixby's  
REPORT DATE: October 6, 1999

ORDER ID: 3973  
DATE RECEIVED: September 13, 1999  
SAMPLER: PL  
ANALYST: 128

Ref. Number: 144086      Site: Duplicate      Date Sampled: September 9, 1999      Time: NI

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
TPH 8015 DRO	< 0.40	mg/L	SW 8015B	9/22/99

Ref. Number: 144087      Site: GP-10      Date Sampled: September 9, 1999      Time: 12:50 PM

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
TPH 8015 DRO	< 0.40	mg/L	SW 8015B	9/27/99

Ref. Number: 144088      Site: gp-11      Date Sampled: September 9, 1999      Time: 1:05 PM

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
TPH 8015 DRO	< 0.40	mg/L	SW 8015B	9/27/99

Ref. Number: 144089      Site: GP-3      Date Sampled: September 9, 1999      Time: 12:15 PM

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
TPH 8015 DRO	1.45	mg/L	SW 8015B	9/27/99

Ref. Number: 144090      Site: GP-1      Date Sampled: September 9, 1999      Time: 11:53 AM

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
TPH 8015 DRO	< 0.40	mg/L	SW 8015B	9/27/99



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**Laboratory Services**

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Ref. Number: 144091      Site: GP-19      Date Sampled: September 9, 1999      Time: 11:40 AM

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
TPH 8015 DRO	< 0.40	mg/L	SW 8015B	9/27/99

Ref. Number: 144092      Site: GP-2      Date Sampled: September 9, 1999      Time: 12:00 PM

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
TPH 8015 DRO	1.16	mg/L	SW 8015B	9/27/99

Ref. Number: 144093      Site: GP-4      Date Sampled: September 9, 1999      Time: 12:25 PM

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
TPH 8015 DRO	< 0.40	mg/L	SW 8015B	9/22/99

Ref. Number: 144094      Site: SS-1      Date Sampled: September 9, 1999      Time: 1:20 PM

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
TPH 8015 DRO	880.	mg/Kg	SW 8015B	9/29/99

Ref. Number: 144095      Site: SS-2      Date Sampled: September 9, 1999      Time: 1:30 PM

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
TPH 8015 DRO	46.0	mg/Kg	SW 8015B	9/27/99



## CHAIN-OF-CUSTODY RECORD

2-019 33075

Project Name: <u>Bixby's</u>	Reporting Address: <u>Marin</u>	Billing Address: <u>Marin</u>
Site Location: <u>Poultney, VT</u>		
Endyne Project Number: <u>3973</u>	Company: <u>Marin</u>	Sampler Name: <u>PC</u>
	Contact Name/Phone #: <u>D. Auty 655-5511</u>	Phone #: <u>655-5511</u>

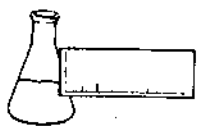
Lab #	Sample Location	Matrix	G R A B	C O M P	Date/Time	Sample Containers		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
						No.	Type/Size				
144085	Trp blnk	H <sub>2</sub> O	X		9/9 1030	1	40ml VOA		30		
144086	duplicate				—	3		only do 80216	30		
144087	GP-10				1250	3			30/31		
144088	GP-11				1305	3					
144089	GP-3				1215	3					
144090	GP-1				1153	3					
144091	GP-19				1140	3					
144092	GP-2				1200	3					
144093	GP-4				1225	3				Hcl	
144094	SS-1	Soil	X		1320	3	40ml VOA		30/31	1-Month	
144095	SS-2	Soil	X		1330	3	40ml VOA		30/31	1-Month	

Relinquished by: Signature <i>A-B-J</i>	Received by: Signature <i>M. J. J. J.</i>	Date/Time <i>9/13/99 4:25pm</i>
Relinquished by: Signature	Received by: Signature	Date/Time

New York State Project: Yes No ☒

### Requested Analyses

1	pH	6	TKN <sub>T</sub>	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P.	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD <sub>5</sub>	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify): 80216 (31) TPH b, mod 8015 DKO										



**ENDYNE, INC.**

**Laboratory Services**

32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333  
FAX 879-7103

**REPORT OF LABORATORY ANALYSIS**

CLIENT: Marin Environmental  
PROJECT NAME: Bixby's  
REPORT DATE: September 22, 1999  
DATE SAMPLED: September 9, 1999

ORDER ID: 3973  
REF.#: 144,085 - 144,095

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated sample preservation with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

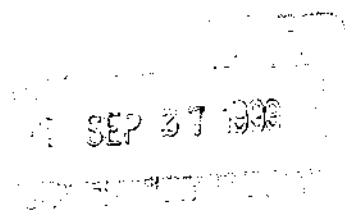
Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.  
Laboratory Director

enclosures



**ENDYNE, INC.****Laboratory Services**

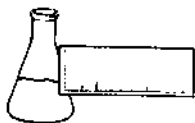
32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333  
FAX 879-7103

**EPA METHOD 8021B--PURGEABLE AROMATICS****CLIENT:** Marin Environmental**DATE RECEIVED:** September 13, 1999**PROJECT NAME:** Bixby's**REPORT DATE:** September 22, 1999**CLIENT PROJ. #:** NI**ORDER ID:** 3973

Ref. #:	144,085	144,086	144,087	144,088	144,089
Site:	Trip Blank	Duplicate	GP-10	GP-11	GP-3
Date Sampled:	9/9/99	9/9/99	9/9/99	9/9/99	9/9/99
Time Sampled:	10:30	NI	12:50	1:05	12:15
Sampler:	P.L.	P.L.	P.L.	P.L.	P.L.
Date Analyzed:	9/21/99	9/22/99	9/21/99	9/21/99	9/22/99
UIP Count:	0	0	0	0	> 10
Dil. Factor (%):	100	100	100	100	100
Surr % Rec. (%):	104	96	106	99	103
Parameter	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)
MTBE	<1	<1	<1	<1	<1
Benzene	<1	<1	<1	<1	<1
Toluene	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1
Xylenes	<1	<1	<1	<1	2.5
1,3,5 Trimethyl Benzene	<1	<1	<1	<1	4.6
1,2,4 Trimethyl Benzene	<1	<1	<1	<1	10.0
Naphthalene	<1	<1	<1	<1	5.1

Ref. #:	144,090	144,091	144,092	144,093	144,094
Site:	GP-1	GP-19	GP-2	GP-4	SS-1
Date Sampled:	9/9/99	9/9/99	9/9/99	9/9/99	9/9/99
Time Sampled:	11:53	11:40	12:00	12:25	1:20
Sampler:	P.L.	P.L.	P.L.	P.L.	P.L.
Date Analyzed:	9/21/99	9/22/99	9/21/99	9/22/99	9/17/99
UIP Count:	> 10	5	> 10	> 10	> 10
Dil. Factor (%):	100	20	100	100	100
Surr % Rec. (%):	96	99	97	104	108
Parameter	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/kg)
MTBE	<1	168.	<1	TBQ <1	<10
Benzene	<1	18.0	<1	<1	21.3
Toluene	<1	14.8	<1	<1	77.1
Ethylbenzene	<1	<5	<1	<1	22.2
Xylenes	<1	<5	2.4	<1	115.
1,3,5 Trimethyl Benzene	<1	<5	2.8	<1	21.0
1,2,4 Trimethyl Benzene	<1	<5	4.9	<1	44.0
Naphthalene	<1	<5	8.2	<1	89.8

Note: UIP = Unidentified Peaks TBQ = Trace Below Quantitation NI = Not Indicated



**ENDYNE, INC.**

**Laboratory Services**

32 James Brown Drive  
Williston, Vermont 05495  
(802) 879-4333  
FAX 879-7103

**EPA METHOD 8021B--PURGEABLE AROMATICS**

CLIENT: Marin Environmental

DATE RECEIVED: September 13, 1999

PROJECT NAME: Bixby's

REPORT DATE: September 22, 1999

CLIENT PROJ. #: NI

ORDER ID: 3973

Ref. #:	144,095				
Site:	SS-2				
Date Sampled:	9/9/99				
Time Sampled:	1:30				
Sampler:	P.L.				
Date Analyzed:	9/17/99				
UIP Count:	>10				
Dil. Factor (%):	100				
Surr % Rec. (%):	91				
Parameter	Conc. (ug/kg)				
MTBE	<10				
Benzene	12.1				
Toluene	56.4				
Ethylbenzene	13.3				
Xylenes	63.0				
1,3,5 Trimethyl Benzene	19.1				
1,2,4 Trimethyl Benzene	38.7				
Naphthalene	50.7				

Note: UIP = Unidentified Peaks    TBQ = Trace Below Quantitation    NI = Not Indicated



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## CHAIN-OF-CUSTODY RECORD

33075

Project Name: <u>Bixby's</u> Site Location: <u>Poultney, VT</u>	Reporting Address: <u>Marin</u>	Billing Address: <u>Marin</u>
Endyne Project Number: <u>3973</u>	Company: <u>Marin</u> Contact Name/Phone #: <u>D. Antev 655-0011</u>	Sampler Name: <u>PL</u> Phone #: <u>655-0011</u>

Lab #	Sample Location	Matrix	G R A B	C O M P	Date/Time	Sample Containers		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
						No.	Type/Size				
144085	Trip blank	H <sub>2</sub> O	X		9/9 1030	1	40ml VOA		30		
144086	duplicate				—	3		only do 8021b	30		
144087	GP-10				1250	3			30/31		
144088	GP-11				1305	3					
144089	GP-3				1215	3					
144090	GP-1				1153	3					
144091	GP-19				1140	3					
144092	GP-2				1200	3					
144093	GP-4				1225	3				Hei	
144094	SS-1	Soil	X		1320	3	40ml VOA		30/31	1-MeOH	
144095	SS-2	Soil	X		1330	3	40ml VOA		30/31	1-MeOH	

Relinquished by: Signature <i>A-B-J</i>	Received by: Signature <i>W. J. J. J. J.</i>	Date/Time <i>9/13/19 4:25pm</i>
Relinquished by: Signature	Received by: Signature	Date/Time

New York State Project: Yes No ☒

### Requested Analyses

[illegible]